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FINAL REPORT

U.S. EXPERIENCE WITH COMPETITION IN LONG DISTANCE TELEPHONE SERVICE

A Study Carried Out for the
Ministry of Transportation and Communications
Government of the Province of Ontario

March 1984

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March 29, 1984

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Dear Mr. Goss:

We present herewith the final report of our study of the U.S. Experience with Competition in Long Distance Telephone Service. We were pleased to undertake this study for the Ministry of Transportation and Communications.

Another important aspect of the study was the seminar which Professor Irwin and I provided for you and your colleagues on March 23, 1984. During the seminar, we were able to discuss many aspects of this complex subject which could not readily be included in the report.

I would like to emphasize in this covering letter that the report was prepared as a basis of reference in response to your requirement for information on the U.S. experience. The emphasis was not intended to be the development of conclusions or recommendations with respect to the Canadian or Ontario situation.

Yours sincerely,

Donald Ford
President

U.S. EXPERIENCE WITH COMPETITION
IN LONG DISTANCE TELEPHONE SERVICE

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EXECUTIVE SUMMARY

INTRODUCTION

The purpose of this study was to gather information on the U.S. experience with competition in long distance telephone service. The study was conducted in four main segments. The first was a review of all of the federal regulatory proceedings before the FCC beginning with the "Above 890" private microwave decision of 1959 and ending with the FCC's recent examination of the impact of several federal decisions on local rates in FCC Docket CC 83-788, which was completed in December of 1983.

The second major segment of the study was an examination of the results of competition in terms of the market shares attained by the various competitors for interexchange telecommunications services. This part of the study found a significant lack of published data which necessitated the use of personal interviews to determine not only the marketing strategies of the competitors, but also some of the market data.

The third phase of the study was the gathering of information on the marketing strategies of the competitors. Personal interviews were carried out with representatives of MCI, GTE-Sprint, the Federal Communications Commission (FCC), the National Association of Regulatory Utility Commissioners (NARUC), the American Council for Competitive Telecommunications (ACCT), the Association of Long Distance Telephone Companies (ALTEL), and representatives of several state regulatory commissions. A listing of individuals interviewed during the course of the study is contained in Appendix C.

The fourth segment of the study was to examine changes in local rates during the period of increasing competition and to try to relate those changes in local rates to changes in the competitive situation. For this purpose, certain states where competition was generally acknowledged to be very strong were compared with states where competition was generally acknowledged to be minimal. It should be emphasized in this executive summary, however, that these comparisons may not be valid for any number of reasons, in large part because the state regulatory commissions which have jurisdiction over local rates are not working to a common set of objectives.

Four separate papers were produced during the course of this study, one corresponding to each of the major segments of the study as described above. It had originally been planned to include each of these papers as a separate chapter in this report. However, difficulties in gathering market data from public sources, as described above, and the logical association between marketing strategies and market shares, persuaded us that these two aspects of the study should be combined in one chapter.

Accordingly, this report is structured in three main parts, namely the history, the strategies and market shares, and the impact on local rates.

While the emphasis in this study was to gather information rather than conduct analysis or make conclusions, we thought it would be useful to provide an overview of our findings, and also some conclusions which we felt would be useful to the Ministry, in a concluding chapter. A summary of these findings and conclusions is also contained in this executive summary.

OVERVIEW - THE DEVELOPMENT OF A COMPETITIVE ENVIRONMENT

Specialized Common Carriers have been permitted to offer private line and private network services since the FCC's Specialized Common Carrier Decision of 1971, although the question of dial-up access or interconnection was not resolved until 1974. Resale of private line services by the Specialized Common Carriers was allowed in 1976. Also in 1976, the FCC found MCI's "Execunet" service to be unlawful because the FCC had authorized MCI to offer only private line services. MCI appealed the decision and the Court found that because the Commission had never made an affirmative determination that the public interest required a monopoly supplier in interstate toll service, a competitor's service could not be excluded from the marketplace.

Once the Execunet service was authorized, the Bell Operating Companies (BOCs) developed a tariff for "Exchange Network Facilities for Interstate Access", or ENFIA. The ENFIA tariff was intended to be a temporary tariff pending the determination of access charges by the FCC in its MTS/WATS Market Inquiry (Docket CC 78-72). The FCC extended the inquiry beyond its original terms of reference because of its concern that bypass of AT&T would result in a loss of contribution to the local operating companies. The access charge determination later became the prime focus. Access charges under this Docket were to be imposed on April 1, 1984, although a recent press release announced the delay of the imposition of access charges for residential and single line business service until June 1, 1985. A Universal Service Fund to assist in defraying the cost of local service in high cost areas was also established.

In Docket CC 80-286, the FCC also set up a Joint Board to reexamine the rules for allocation of exchange plant investment between interstate and intrastate services. To date, the FCC has accepted recommendations for freezing the SPF (Subscriber Plant Factor) which is used to allocate investment in non-traffic sensitive plant, and to phase Customer Premises Equipment (CPE) out of the separations process.

Part of the Modification of Final Judgment which settled the 1974 Justice Department's anti-trust suit and resulted in the divestiture by AT&T of the Bell Operating Companies (BOCs) also called for the BOCs to offer equal access to all inter-LATA carriers by September 1, 1986.

OVERVIEW - THE COMPETITORS

The initial competitors for interexchange telecommunications services were Microwave Communications Incorporated, now MCI, Southern Pacific with its Sprint service (recently purchased by GTE), and Datran (now bankrupt). MCI and Sprint offered discounted voice services, and Datran offered switched data services on a digital data network.

With the deregulation of resale carriers and removal of the restrictions on reselling WATS and private line services, the competitive telecommunications market in the United States is currently composed of three major segments. The first is, of course, AT&T with an estimated 92-94% of the interexchange voice telecommunications market. Total AT&T toll revenues in 1983 for interstate services were estimated to be $34 billion. MCI and Sprint, with a combination of their own facilities and the resale of AT&T's WATS services to provide universal termination, together account for approximately 75% of the remaining competitive market. With MCI being about twice the size of Sprint in terms of annual revenues, MCI has some 3-4% of the interstate market, with Sprint having 1.5-2%. The balance of the market share, estimated at 1.5-2%, is taken up by a number of smaller and, in some cases, extremely small resale carriers estimated to number between 300 and 400.

While the market share of the competitors measured in terms of the total interstate telecommunications market is of the order of 6-8%, AT&T points out that in terms of the "target markets", being major metropolitan areas and heavy users, the market share of the competitors is closer to 25 percent.

In terms of market strategies, MCI and Sprint have experienced steady growth in revenues by promoting themselves as providers of "cheap long distance service". More recently, however, in part because of competition from the resellers, MCI and Sprint have restructured their offerings, and are beginning to concentrate on data, integration of services and, generally, more sophisticated packages of services for their major corporate clients. The resellers tend to concentrate on adapting reasonably sophisticated technologies to offer service to specialized segments of the market. While their margins are being squeezed as rates for WATS, which they are reselling as MTS, are lowered in response to competition, it is likely that because of the minimum investment required, they will be able to react quickly to opportunities in the marketplace. Turnover, however, is expected to be high.

SUMMARY OF FINDINGS AND CONCLUSIONS

The extent of competition is increasing at all levels - interstate, intrastate inter-LATA and intrastate intra-LATA. However, as the major competitors grow in size, they are subjected to competitive pressures which force them to broaden their definition of the market. As a result, they tend to lose some of the cost advantages they once had. This probably accounts for MCI's current attempts to diversify and to promote itself as a sophisticated provider of telecommunications services. Interestingly, as MCI and Sprint grow, they create an opportunity for smaller resellers to "cream-skim" in the more lucrative segments of the market. The resellers are virtually unregulated both as to tariffs and entry.

The implementation of access charges, particularly the phasing-in of these charges during the period up to June 1986 when equal access to all interstate carriers will be provided, is a critical period for the regulators, legislators and competing carriers.

There is no apparent direct relationship between the extent of competition and increases in local rates. However, with only a 6-8% share of the total interstate market, the Other Common Carriers and resellers could not be expected to have a significant impact compared with other variables.

There is widespread concern about the impact on local rates. The FCC has implemented a Universal Service Fund to help defray the costs in high-cost areas. Furthermore, the visibility of access charges, compared with the relatively invisible contribution under the jurisdictional separations process, should help to promote efficiency of operation among the local exchange companies.

As long as access charges are reasonable, "local bypass" will be avoided. However, the major competitors (MCI and Sprint) will establish multiple points of entry within the LATAs if access charges are too high. This could lead to a significant drop in local revenues with little decrease in costs in the short term. Local rates could be affected to a significant extent.

There is widespread concern among the independent telephone companies, particularly the smaller independents and cooperatives, that the loss of toll contribution will have a severe impact on their viability in spite of the Universal Service Fund. The gradual loss of control at the state level due to the federal preemption of state jurisdiction on a number of matters is a concern to state regulators, small independents and consumer groups. Generally speaking, they are all resisting any further changes to the current regulatory and competitive environment.

THE DEVELOPMENT OF A COMPETITIVE ENVIRONMENT

INTRODUCTION

This chapter provides a detailed history of regulatory events in the U.S.A. which led to the present competitive situation in telecommunications, with particular emphasis on competition in long distance services. In order to provide the appropriate context for the detailed examination, it begins with a brief description of the development of the industry and the structure of the industry at the time of the first decisions which appeared to indicate a change towards increased competition. These decisions, including the "Hush-a-Phone", "Carterfone" and "Above 890" decisions, appear, in retrospect, to have been the turning point towards increased competition.

We feel it is appropriate to isolate those decisions of the FCC which have an impact on private line competition from those which affect competition in public switched services. Accordingly, in the section entitled "The Advent of Competition" we have provided an overview of the early decisions which are involved, up to but not including the MCI Execunet case. In the section entitled "Decisions Creating a Competitive MTS Environment", we have provided details of the most recent Dockets which relate to competition, beginning with the Execunet case.

It should be pointed out that many of the Dockets involved are subject to further reconsideration by the FCC or the Courts. Unlike the situation in Canada, it is quite common for the FCC to re-examine certain decisions on its own motion or following a petition from one of the parties affected. The likelihood of a decision being subjected to judicial review is also much greater in the U.S. Accordingly, a matter which appears to have been decided can often arise at some future time. Many of these Dockets go on for ten years or more, and through tentative decisions, final decisions, reconsiderations, further reconsiderations, etc. In carrying out this study, we have searched the literature thoroughly in order to obtain the most recent decision or order for each Docket. However, it should be pointed out that these decisions could be rendered obsolete at any time by the issuance of a new decision or Court ruling.

While not strictly speaking a matter before the FCC, the AT&T Divestiture also has great significance for the competitive environment. We have therefore provided a detailed examination of this proceeding in a separate section.

As with any subject of this nature, terminology is often a problem. Many of the Dockets referred to in this paper have been given "nicknames" over time, such as "Above 890", "Computer I", "Specialized Common Carrier", etc. To assist the reader in this respect, we have also provided a list of abbreviations and Dockets in Appendix A. Appendix B contains a summary of the FCC Decisions referred to in the text.

STRUCTURE OF THE INDUSTRY

The rationalization of the telecommunications industry began in earnest in the early 1900's. Price competition between AT&T (Bell) and the independent telephone companies forced profit margins to the point where the independents were receptive to merger. With the increasing importance of long-haul, AT&T's advantage over the independents was increasing.

In 1909, AT&T purchased 30% of Western Union's stock along with sufficient voting rights to give it control. During the 1907-1912 period, Bell's acquisitions combined with growth in demand provided it with a 62% increase in total telephones, while the independents increased their total telephones by only 22%. The market share of the independents decreased from 49% to 42% during this period.

AT&T was concerned that provisions of the Sherman Act would be used to dissolve the monopoly, and accordingly it entered into negotiations with the U.S. Attorney General. In 1913, the Kingsbury Commitment was reached by which AT&T agreed to dispose of its Western Union stock, allow interconnection with the independents, and refrain from acquiring any directly competing companies. With interconnection, the independents effectively gained an interest in the Bell system because of the extent of the Bell lines. They were therefore less likely to establish a competitive long distance system. From AT&T's perspective, the Kingsbury Commitment appeared to be a trade-off of short term control for long term industry dominance.

In 1921, the Willis-Graham Act was enacted, exempting telephone mergers from Anti-Trust review if approved by the regulatory authorities. The bill was supported by both Bell and the independents. As the Willis-Graham Act ended the Kingsbury Commitment, it introduced another increase in the rate of telephone company mergers. By 1932, mergers and more rapid growth had given Bell a 79% market share.

The Communications Act of 1934 created the Federal Communications Commission (FCC) and strengthened and centralized regulation. Authority over rates was increased and tariffs were required to be posted in advance. By 1934, AT&T owned approximately 80% of the telephones in the U.S., and also owned the only significant long distance network.

During the years which followed, local entry was prohibited by state control, and toll entry was limited by AT&T's control over rights-of-way and also its control, through patents, of much of the long distance technology.

A major study carried out by the FCC of AT&T resulted in a "Proposed Report" which advocated direct regulation of AT&T's manufacturing subsidiary, Western Electric, and also advocated competitive bidding for the operating companies in order to eliminate the close ties between the operating companies and Western Electric. This report was issued in 1938. The final report, issued in 1939, did not contain these recommendations.

AT&T made voluntary reductions in toll rates which seemed to keep its regulator satisfied that the rates were not excessive. As a result, no full-scale investigation of AT&T's rates was initiated until the 1960's.

During the 1940's, the implementation of microwave technology became a reality. The FCC issued experimental licences but was reluctant to grant permanent licences. 1945 saw Philco build the first operational link between Washington and Philadelphia. In 1947, AT&T constructed links between New York and Boston. Thereafter, AT&T emphasized microwave and de-emphasized coaxial cable in its R&D programs.

In 1948, the FCC reserved permanent use of the microwave frequencies for the common carriers, in accordance with the policy advocated by AT&T. Because AT&T could not meet network demand for video carriage, the networks were authorized to build temporary systems until common carrier facilities became available. In a tariff filed in 1948, which was its first video tariff, AT&T imposed a strict prohibition on interconnection of its facilities with private networks. Philco sued AT&T, lost, then withdrew from the microwave field.

In 1949, the FCC issued a decision requiring AT&T to interconnect with broadcast company systems, but not with other carriers such as Western Union. This decision was affirmed in 1952 when the FCC ruled that because there were adequate Bell facilities on the route served by Western Union, there would be no public interest in connecting Western Union into the network.

A 1958 FCC ruling allowed broadcasters to operate microwave systems as long as no interconnection was required with the facilities of AT&T. Competition was effectively eliminated by the 1952 decision, and the 1958 decision did not change the situation.

In 1949, the U.S. Justice Department filed a Sherman Act anti-trust suit against AT&T and Western Electric based on the FCC investigation of the 1930's. The main point of the suit was the separation of monopoly services from unregulated equipment supply undertakings. AT&T had the trial deferred a number of times by taking on defense commitments, etc., and this eventually led to negotiations for a consent decree.

Agreement on the Consent Decree was reached in 1956. It allowed the existing arrangements among the various companies of the Bell System to continue. AT&T was "enjoined and restrained from engaging, either directly or indirectly through its subsidiaries other than Western and Western's subsidiaries, in any business other than the furnishing of common carrier communications services", with minor specified exemptions. Similarly, Western Electric was "enjoined ... from engaging ... in any business not of a character or type engaged in by Western or its subsidiaries for companies of the Bell System", with certain exemptions. AT&T was also required to issue royalty-free patents to any applicant except those who were party to a cross-licensing agreement (GE, RCA and Westinghouse). The rationale for the removal of patent protection was that the regulators controlled entry, and therefore patent protection was not required.

By the time of the Consent Decree, the barriers to entry were high. The FCC offered AT&T a high degree of protection, AT&T owned and/or controlled the operating companies, restrictions on interconnection were in place, and the ability of a new entrant to compete with AT&T given the economies of scale available to AT&T was questionable. However, the incentives to entry were also high because of AT&T's pricing policies. No restrictions had been placed on AT&T's interstate rate of return by the ICC or the FCC. The rates were based on distance with no volume discounts.

Another significant factor was the extent of cross-subsidization of local by toll. The principle of cost allocation in use was that costs should be shared according to relative use. Over time, local was assigned an increasingly larger share of the costs. State regulators generally supported the increased cross-subsidization because the revenue requirement of the local companies was thereby decreased. The FCC took no action because toll rates were falling. Accordingly, instead of the cost-driven situation which would have resulted in declining toll rates and increasing local rates, toll was allowed to increasingly subsidize local. This further increased the incentive for competing carriers to enter the market.

At the time of the 1956 Consent Decree, then, the structure of the U.S. telecommunications industry was as follows:

- AT&T was the major carrier having ownership of approximately 80 % of the telephones through the Bell Operating Companies (BOC's).
- AT&T operated the only long distance network.
- Interconnection with AT&T's facilities was severely restricted.
- AT&T's long distance pricing policies provided a strong incentive to enter the market because of the extent of cross-subsidization of local by toll.

THE ADVENT OF COMPETITION

A number of early decisions of the FCC had a bearing on the eventual competitive environment. The first to break the restriction on attachments, even passive attachments, was the Hush-A-Phone Case (Docket 9189).

The Hush-a-Phone was a passive device which clipped onto the telephone and reportedly improved the quality of service in noisy locations. AT&T informed users that the device was illegal and threatened to suspend service. Hush-a-Phone complained to the FCC in December 1948. In a December 1955 decision, the FCC ruled against the complainant. Hush-a-Phone appealed and won. The AT&T tariff was amended to allow the attachment of "passive devices".

While it was not given as much attention as the "Carterfone" case described below, we believe that the July 1959 "Above 890" Decision (Docket 11866) in which it authorized the private ownership of microwave facilities represented a fundamental change in the Commission's attitude towards competition. The FCC decided that there were enough frequencies for common carrier and private users and explicitly ruled that the availability of common carrier facilities would not be a factor in granting private microwave applications. However, the sharing of private systems was not permitted. Interconnection was to be determined on a case-by-case basis.

This decision did not go into effect immediately because of petitions from the common carriers requesting reconsideration. In October 1960, the FCC reaffirmed its original decision.

It should be emphasized that this decision did not create an opportunity for widespread competition in long-haul. The restrictions on interconnection and sharing limited the application to firms which had a large volume of point-to-point communications. However, even this small amount of potential competition elicited a strong response from AT&T. Four months after the final decision was issued, AT&T filed its Telpak tariff which provided discounts of the order of 50 to 85% for 12 to 240 point-to-point private lines.

The Carterfone case (Dockets 16942 and 17073) is often described as the turning point towards competition. It is a significant decision from the perspective of terminal attachment. The Carterfone was a device which transmitted signals from a mobile radio transmitter into the telephone handset and vice-versa. In 1960, the FCC informed the company that the device did not violate FCC rules, but did violate the AT&T tariff. AT&T threatened to suspend service to Carterfone users. Carter filed an anti-trust suit against AT&T, but the court passed it back to the FCC. In 1966, the FCC instituted an investigation , and in 1968 it ruled that the device violated the tariff, but that the tariff itself was illegal.

As mentioned earlier, we find that the "Above 890" decision, which resulted in AT&T implementing the bulk private line discount Telpak tariff, to be more significant from a toll competition perspective. In fact, for purposes of this research, we have formulated a framework which highlights the significant regulatory proceedings respecting competition, and at the same time illustrates the relationship of these proceedings to costing and terminal attachment proceedings. This framework is illustrated in Exhibit 1, opposite.

The remainder of this section describes the history of the proceedings from Docket 11866 (Above 890) through Docket 19896 (Access to CCSA and FX). The costing and rate proceedings which went on through this same period also had an impact on competition, as did those concerned with what we term the "Scope of Authority", particularly Computer I.

Above 890 and the Telpak Response

In "Above 890", (Docket 11866), the FCC decided that there were enough frequencies for both common carrier and private users. With respect to whether the Commission should, as a matter of law or policy, protect the common carriers from adverse economic effects, the FCC found no basis that any adverse economic effects would result.

The response of AT&T to the Above 890 decision was the filing of a rate schedule providing for bulk discounts for a number of point-to-point channels to one customer, known as the Telpak service. The rates proposed provided discounts compared to single private lines ranging from 50% for 12 voice grade circuits (Telpak A) to 85% for 240 voice grade circuits (Telpak D).

Motorola and Western Union requested the suspension of the Telpak tariff. The FCC suspended it for the maximum period permitted by law (90 days) and began an investigation which took four years (Docket 14251). In December 1964, the FCC found that the Telpak service was indistinguishable from ordinary private line service since the same facilities were used. Accordingly, the rates were found to be discriminatory. Under the Communications Act, discriminatory rates are not permitted unless they are both compensatory and justified by competitive necessity. The Telpak A&B rates were found not to be justified and were cancelled. The Telpak C&D rates were found to be justified, but whether or not they were compensatory could not be determined.

Costing and Rates

Following from the Telpak Inquiry (Docket 14251) and from the Domestic Telegraph Investigation (Docket 14650), which included an examination of cross-subsidy between monopoly and competitive services (the 7-Way Cost Study), a broader inquiry into AT&T's interstate tariffs was initiated.

None of these inquiries were ever really completed. Since the FCC's authority was somewhat limited (it could suspend tariffs for 90 days), any tariffs found unlawful could be refiled in a slightly different form. As a result, the Commission was often trying to catch up to AT&T. Current dockets would be consolidated into later dockets, and the process would begin again. This gave AT&T considerable freedom to respond to forces of competition. As described later, AT&T made a competitive response to each of the new stages of competition.

During the period of the Domsat and Specialized Common Carrier proceedings described below, a significant costing proceeding was taking place in Docket 18128 (which incorporated Docket 16258). This proceeding had relevance to the competitive situation because, for example, AT&T proposed an incremental costing methodology for competitive services such as private line, while the FCC favoured fully distributed costing. The final resolution did not take place until 1976 with the adoption of the Method 7 Fully Distributed Costing Methodology, which was well after several of the significant competition/market entry decisions had been made.

Specialized Common Carrier

In response to applications from MCI and Datran, the FCC began an inquiry into the requirement for specialized common carriers. The need was primarily seen to be data communications, and the Commission found it was in the public interest. Accordingly, the Commission authorized the specialized common carriers to offer private line services. It is important to note that these applications were brought before the federal communications regulatory authority, not the state commissions.

AT&T made several responses. One was to file its "Hi-Lo" private line tariff which provided much lower rates in high density areas (two years later the FCC found the tariff unreasonable). A second response was to refuse to interconnect with the specialized common carriers, or to make the interconnection as inconvenient as possible. It tried to bring interconnection under state regulation by filing tariffs with the state commissions. This resulted in Docket 19896, in which the FCC ordered AT&T and the Bell System Companies to interconnect with the specialized common carriers for all their interstate services, and to file tariffs with the FCC. The facilities to be supplied were to be similar to those provided to AT&T's Long Lines Department.

This matter was again taken up in Docket 20099. Following the filing of a tariff for access to domestic satellite facilities, the Commission instituted Docket 20099 to look into all BSOC tariffs offering facilities for use by other common carriers. A process of negotiation was followed, with resolution in the form of a joint motion which the Commission accepted in 1975.

Domestic Satellites

The next significant market entry proposal was the Domestic Satellite Proceeding (Docket 16495). In 1966, in response to two studies on domestic satellites carried out by the executive branch, the FCC instituted a proceeding to explore the questions relating to domestic telecommunications satellites. The significant decision in this docket was the Second Report, known as Domsat II which adopted an "open skies" policy. Conditions were imposed on AT&T.

While this proceeding began well before the specialized common carrier proceeding, it did not result in a substantive decision until 1972 with the Domsat II decision.

The BOC's responded with a tariff for access to Domsat facilities almost immediately. As noted earlier, this resulted in a broader inquiry into BOC offerings to other common carriers.

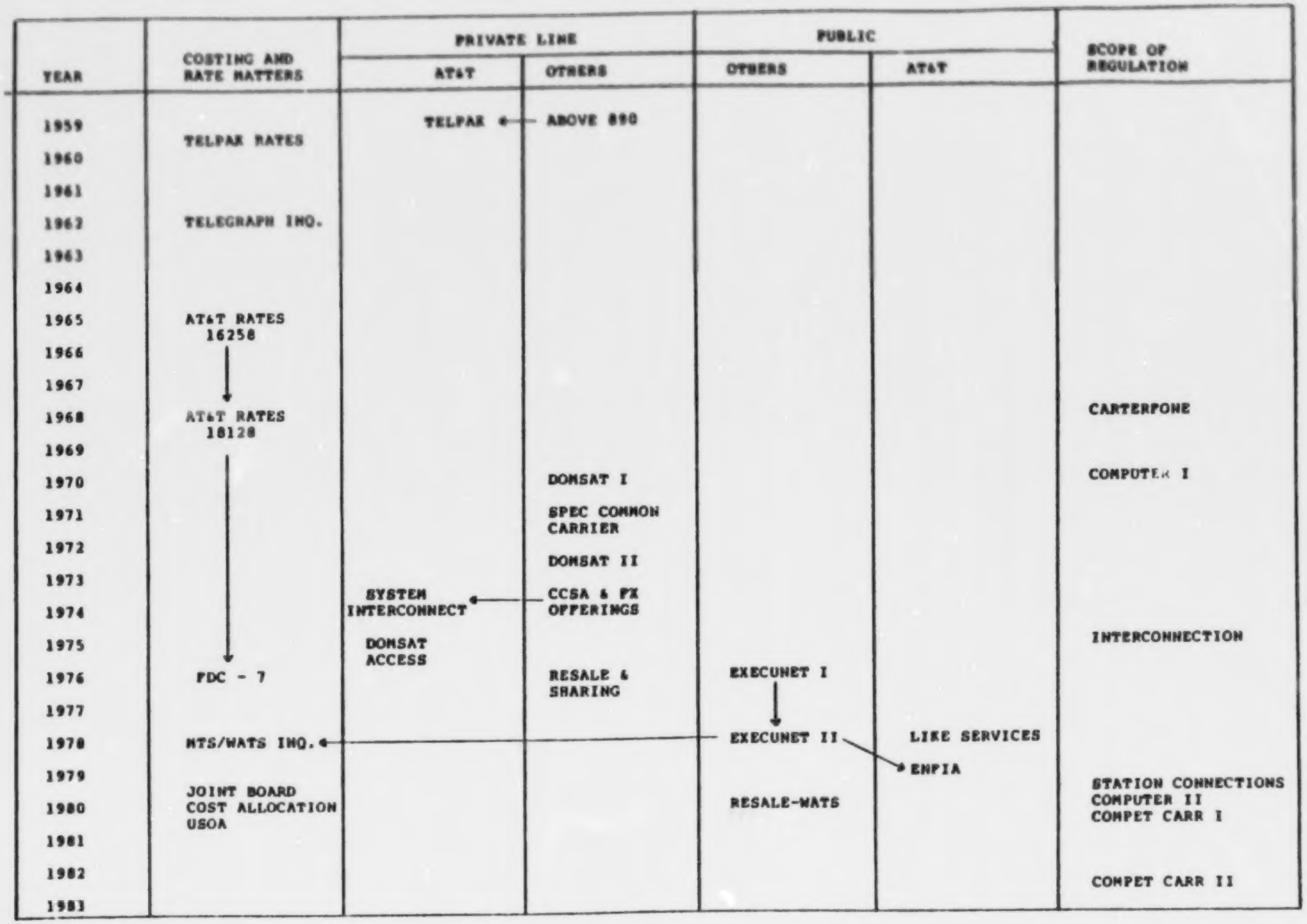
Scope of Regulation

During the period of Domsat and Specialized Common Carrier, the Commission's Computer I proceeding (Docket 16979), along with Carterfone (Docket 16942), was also taking place. While the issues in Computer I are quite different from those of Specialized Common Carrier, it is quite likely that the concern with data processing and communications in the Computer I inquiry did have some impact on the Commission's understanding of the significance of computer communications. This might have accounted in part for the rather expeditious manner in which the Specialized Common Carrier decision was made.

The "maximum separation" rules certainly demonstrated the Commission's concern for the opportunity afforded monopoly carriers to cross-subsidize other undertakings. This decision did not apply to AT&T because the 1956 Consent Decree already restricted AT&T's activities.

During the later part of this period, the Commission also initiated its terminal interconnection proceeding (Docket 19528). Terminal interconnection was gradually liberated during this period.

EXHIBIT 1



YEAR	COSTING AND RATE MATTERS	PRIVATE LINE		PUBLIC		SCOPE OF REGULATION
		AT&T	OTHERS	OTHERS	AT&T	
1959	TELPAK RATES	TELPAK	ABOVE 890			
1960						
1961						
1962	TELEGRAPH INQ.					
1963						
1964						
1965	AT&T RATES 16258					
1966						
1967						
1968	AT&T RATES 18128					CARTERFONE
1969						
1970			DOMSAT I			COMPUTER I
1971			SPEC COMMON CARRIER			
1972			DOMSAT II			
1973		SYSTEM INTERCONNECT	CCSA & FX OFFERINGS			
1974						
1975		DOMSAT ACCESS				INTERCONNECTION
1976	FDC - 7		RESALE & SHARING	EXECUNET I		
1977						
1978	MTS/WATS INQ.			EXECUNET II	LIKE SERVICES	
1979	JOINT BOARD COST ALLOCATION USOA				ENFIA	STATION CONNECTIONS COMPUTER II COMPET CARR I
1980				RESALE-WATS		
1981						
1982						COMPET CARR II
1983						

Sharing and Resale

In 1974, the FCC began an inquiry into whether sharing or resale should be allowed, and if so, how it should be regulated. In 1976, which enters into the Execunet period, the Commission did approve of sharing and resale of private line by specialized common carriers, but, with the exception of the requirement to demonstrate public convenience and necessity, resale carriers were to be regulated in the same way as all other common carriers. That is, only the entry provisions were relaxed.

General Inquiry into Effects of Competition

Docket 20003 was instituted as a broad fact-finding investigation into the economic effects and interactions of several telecommunications industry and regulatory policies and practices, in particular competition in private line and terminal equipment, cost separation and rate structure for local rates. At the heart of this proceeding was the impact on local telephone rates.

In its First Report issued in 1976, the Commission found little, if any, adverse impact on revenues or local rates.

The Competitive Situation to 1976

By 1976, competition was restricted to the private line field, although with the advent of resale carriers, a great variety of services were available on a competitive basis. AT&T had made responses, by competitive rate action and anti-competitive interconnection. These activities, however, were subjected to close scrutiny by the FCC, in large part because of the actions of its competitors in bringing matters before the regulator.

MCI and Southern Pacific (Sprint) as well as other specialized common carriers were offering FX service and private network services as well as private line services. Datran, however, had by this time declared bankruptcy as it was unable to withstand the competitive forces brought to bear by AT&T when it built a digital data network to compete with Datran. Datran's network was purchased by Southern Pacific.

DECISIONS CREATING A COMPETITIVE MTS ENVIRONMENT

MCI extended its range of services by offering what it termed a "shared private line" service. It filed a tariff for this offering, known as Execunet, in January 1975 and began marketing the service. While it was described as "shared FX", it could be rented by the minute. It was, of course, a message telecommunications service. There was a monthly minimum charge and, because not all areas of the country were served, it was less flexible than Bell's offering.

AT&T subscribed to the service, found it to be competitive with MTS/WATS and complained to the Commission in May 1975. In July, the FCC rejected the Execunet tariff as being unlawful because MCI was restricted to private line services under the Specialized Common Carrier Decision. MCI appealed on procedural grounds and was granted a stay. The FCC called for comments.

The Execunet Case and Bell's Response

In Docket 20640, the Commission reaffirmed its earlier decision in a further decision adopted June 30, 1976. It ordered MCI to discontinue the Execunet service. MCI again appealed the decision, and also obtained a partial stay of the Commission's order under which it could continue to provide service to existing customers.

In July 1977, the Appeal Court reversed the FCC's decision, ruling that because the Commission had never made an affirmative determination that the public interest required a monopoly supplier in interstate toll service, a competitor's service could not be excluded from the marketplace.

Bell's response to this was to refuse to provide interconnection to the Execunet service, and the FCC concurred. MCI again sought redress in the courts and was successful. On April 14, 1978 the Appeals Court ordered AT&T to provide interconnection to MCI.

Like Services

In a proceeding which began prior to the Execunet case, but which was not decided until later, the FCC in Docket 21402 found WATS and MTS to be "like communications services" within the meaning of the Act because they are functionally equivalent. AT&T was ordered to either eliminate or justify its discrimination in pricing these services at different rates. In a 1980 decision in this docket, the Commission emphasized that it was not trying to eliminate WATS, but was merely requiring AT&T to prove the reasonableness of any discrimination.

The impact of this docket on the competitive situation is not clear. It was initiated at a time when competition in MTS was not at issue, but the rendering of a decision at the time it did could indicate a growing dissatisfaction within the FCC for Bell's anti-competitive tactics.

The MTS/WATS Market Structure Inquiry

Immediately following the Court's decision that Execunet was legal, the Commission instituted an inquiry in Docket CC 78-72, the purpose of which was to determine whether the public interest requires that interstate message toll and/or WATS should be provided on a sole-source basis. In addition to examining the effect of market structure on rates and operations, it was to examine the possible effects of competition on the interstate MTS rate structure and local exchange rates. Finally, it was to determine appropriate access arrangements for all carriers who utilize local exchange facilities to provide interstate services.

This docket is still underway at the present time. The emphasis turned more towards access charges as the proceedings developed. In view of the interim ENFIA arrangements which were entered into, it is more logical to consider this docket again following an examination of ENFIA.

Exchange Network Facilities for Interstate Access

Immediately following a Supreme Court decision not to review the interconnection order, the Bell System Companies filed a tariff with the FCC seeking to offer to the specialized common carriers "Exchange Network Facilities for Interstate Access" or ENFIA. The rates under this tariff were much higher than the local business line rates which the specialized common carriers had been paying.

In order to avoid a protracted hearing process, the FCC, in response to a request from the Assistant Secretary of Commerce for Communications, urged the parties to try and reach a negotiated settlement. In recognition that a change to the separations approach would have a serious impact on the specialized common carriers, the agreement opted for a phasing in based on total revenues. It was intended to be an interim agreement. Paragraph 6 provides that the interim charges will be superseded by charges filed pursuant to an order of the Commission in the MTS/WATS Market Structure Inquiry (Docket CC 78-72).

In 1979, the Commission approved the agreement on a three year term basis. In 1982, as access charges still had not been prescribed, a two year extension was approved.

AT&T has applied several times to have the rates under the ENFIA tariff revised. However, the nominal discount of 45% has been maintained and, as explained in Appendix B, this really amounts to a discount of close to 70% in the case of the major specialized common carriers. The rationale for the discount is that under ENFIA, the user receives a lower signal quality, must use touch-tone, does not receive a detailed billing and may have to dial up to 22 digits to make a call.

MTS/WATS Market Structure (Cont'd)

Following the ENFIA Agreement, the Commission issued a Second Supplemental Notice containing a proposed access charge plan, and also announced it would issue a separate notice to revise the FCC-NARUC Separations Manual. The Commission's concern in developing an access charge was that competition in MTS/WATS would lead to bypass of AT&T's toll facilities by large users and a loss of the contribution from those users to the BOC's local exchange operations.

On August 1, 1980, almost five years after the introduction of Execunet, the Commission declared MTS/WATS competition to be in the public interest.

In 1982, following the announcement of the AT&T divestiture, the Commission announced that several issues required further discussion before an access charge plan could be adopted. These issues were related to the non-traffic sensitive (NTS) costs and differences in interconnection quality.

In 1983, the FCC announced its conclusion that a substantial portion of fixed exchange plant costs that are assigned to interstate services should be recovered through flat per line charges assessed upon end users. A Universal Service Fund was announced to preserve universal service. A transition plan was found to be necessary to avoid disparities in rates. Later in 1983, the FCC announced it was undertaking a 7-year monitoring of the effects of the interstate access charges on local rates. In the most recent decisions in this docket, the Commission announced a postponement of the implementation date to April 1, 1984 with a further reprieve until June 1985 for residential and single-line business customers.

Tariff/Competition Matters

Concurrent with the MTS/WATS Market Inquiry and the various aspects of the ENFIA Docket, the FCC was conducting a number of other inquiries which have implications for the competitive environment. These include Docket CC 79-246 (Private Line Discount Practices), Docket CC 80-54 (Resale and Shared Use - WATS), Docket CC 80-765 (WATS Tariff), Docket CC 82-44 (Resale of Private Line), Docket CC 82-45 (Transponder Sales) and Docket CC 82-619 (Application of ENFIA).

In the Private Line Discount Practices case, the Commission expressed its belief that AT&T's complex private line tariffs "tend to thwart the operations of the competitive marketplace by making it difficult for customers to understand their options and intelligently choose the most advantageous". AT&T was ordered to submit a proposal for restructuring its private line offerings.

In Resale and Shared Use - WATS, the Commission permitted unlimited resale and shared use of MTS and WATS, while in WATS Tariff, it was looking into whether the difference in rates between MTS and WATS was justified, and whether a unified PSN tariff would overcome the discrimination.

In Resale of Private Line, the Commission began looking into the potential unlimited resale of private line services to provide MTS or WATS or equivalents thereof.

In Transponder Sales, the Commission authorized the sale of Domsat transponders on a non-common carriage basis.

The Application of ENFIA (Docket CC 82-619) also has implications for competition in the marketplace inasmuch as it clarifies the application of the ENFIA tariff to all interstate MTS/WATS-type services except for the resale of MTS and WATS.

Scope of Regulation

Two significant inquiries regarding the extent of regulation, or deregulation, were also taking place during this period of rapidly increasing competition.

Computer II (Docket 20828), an extensive inquiry into the regulation of enhanced services and customer premises equipment (CPE), was carried out over the 1976-1981 period. The FCC found, in its 1980 decision, that the provision of enhanced services and CPE was not subject to regulation. It required AT&T to offer enhanced services and CPE through a separate subsidiary, and required other common carriers to maintain separate books of account and to purchase transmission capacity at tariffed rates for the provision of enhanced services. Unlike Computer I, this decision applied to AT&T and, to an extent, authorized AT&T to engage in business opportunities which the 1956 Consent Decree forbid. Such opportunities, of course, were not necessarily envisioned at the time of the Consent Decree.

In subsequent decisions which fine-tuned the implementation of Computer II, the FCC adopted a "bifurcated approach" to separate new CPE and embedded CPE, rather than a "flash-cut" approach.

Docket CC 79-105 (Station Connections) was instituted by the Commission (as a "logical extension of Computer II") to look into deregulation of inside wiring. Expensing, as opposed to capitalizing, of inside wiring was ordered, with a gradual phasing in over the 1981-84 period, and with a ten-year amortization of embedded investment.

Docket CC 81-893 (Computer II Implementation) was instituted to examine ways of removing over $20 billion in CPE from the rate bases of the regulated carriers.

In Docket CC 83-115 (Structural Separation), the Commission requested comments on whether the divested BOC's should, like AT&T, be required to offer enhanced services and CPE through separate subsidiaries.

It should be noted that two of the decisions described above involved the preemption of state regulation of intrastate matters. Both Computer II and Station Connections imposed federal jurisdiction on state regulatory commissions. A similar situation exists with respect to depreciation, wherein state commissions are obliged to respect federal decisions on methods and rates of depreciation. These preemptions have been upheld by the courts as necessary to prevent the frustration of federal policies.

Another significant decision affecting the competitive environment was the Competitive Carrier deregulation decision (Docket CC 79-252). In its First Report in 1980, which classified common carriers on the basis of their dominance or power in the marketplace, AT&T, the independents, Western Union, the Domsats, Domsat resellers and Miscellaneous Common Carriers (MCC's) were found to be dominant. Specialized Common Carriers and resale carriers were found to be non-dominant. In 1982, resale carriers were further deregulated to the point that entry and rates were unregulated.

Costing and Allocation

All of the decisions described above with respect to increased competition and deregulation of CPE and station connections have implications for the interstate/intrastate separations process. The converse is also true. The allocation of costs between interstate and intrastate also has an impact on the competitive environment.

The FCC instituted two dockets in this respect. The first was Docket CC 78-196 which was established to revise the Uniform System of Accounts. In a later Notice in this Docket, the FCC noted that the USOA must interrelate with the FCC-NARUC Separations Manual as well as a number of other FCC inquiries. The second was Docket CC 79-245 (Cost Allocation Manual) which sought to establish rules for the allocation of costs for AT&T's interstate services, and noted that Fully Distributed Costing Method 7 was "impracticable". The Commission also noted that the access charge methodology to result from Docket CC 78-72 would become the basis for the allocation of those services covered by the charge.

Another significant proceeding was the Joint Board (Docket CC 80-286) which is described in detail in Appendix B. The Joint Board was established to reexamine the rules for allocation of exchange plant between interstate and intrastate services. To date, the FCC has adopted Joint Board recommendations to freeze the SPF (Subscriber Plant Factor) and to phase CPE out of the separations process.

ACTIVITIES AT THE STATE LEVEL

Under the division of jurisdiction in the United States, the state regulatory boards and commissions have jurisdiction over all intrastate telecommunications. As a result, there is a broad range of activities and proceedings with respect to competition going on at the state level.

The states of Texas and Washington, and the District of Columbia, have no entry authorization requirements. Until three years ago, Texas was almost the only state which had a significant amount of intrastate competition.

The State of Michigan

Until recently, the Other Common Carriers have shown little interest in the State of Michigan. Since about 1978, MCI, Sprint and several others would complete an intrastate call within Michigan, but they did not purport to offer this service, and the Michigan Public Service Commission did not try to prevent this because they did not feel it was doing much harm.

MCI and Sprint applied for authorizations to offer intrastate toll service in December, 1983. As a result, the State of Michigan reopened an earlier proceeding with respect to competition, and began proceedings in February. The decision should be issued in July, 1984.

The State of New York

In New York State, the New York Public Service Commission has just approved intra-LATA competition on a conditional basis. Hearings are now in progress on intra-LATA competition and bypass of local service.

Intercity competition was authorized about one year ago. MCI, SBS and a subsidiary of Rochester Telephone must file tariffs with the Public Service Commission. However, the 20 or so resellers are not required to file tariffs because they lease services from carriers whose tariffs are already filed with the Commission. The resellers are, however, required to obtain authorization.

In the view of Commission staff, there is not much intra-LATA or short-haul competition. It is restricted to the main corridors. Resellers tend to concentrate on interstate services, although their business is expected to decline unless there is a value added to the basic service.

One other development in the State of New York is that cable companies, particularly in the area of New York City, are getting into the data carriage business.

The State of Texas

The State of Texas, with 15 LATAs and, until recently, with free entry and no rate regulation, has experienced very strong competition. Recently, legislation was introduced to provide for limited regulation of non-dominant carriers like MCI and Sprint. However, there is still no rate regulation.

Resale carriers in the State of Texas are supposed to register, but very few do this. As a result, the number of resale carriers is unknown, although it is estimated to exceed 100, and perhaps even exceed 200.

The State of Florida

In the State of Florida, it is the view of the Commission that competition cannot be stopped. However, in order to avoid cream-skimming, the Commission specifies that competing carriers must serve the entire homing area of a class 4 switch.

Synopsis - Competition at the State Level

It appears that competition at the intrastate level and intra-LATA level is increasing. Only three states, namely Colorado, North Carolina and Virginia, have legislation preventing competition, and in all three, legislation has been introduced to permit competition. Sprint and MCI are active in making applications to virtually all of the state regulatory boards and commissions. As a result, there are many proceedings currently underway to consider competition in telecommunications at the state level.

THE AT&T DIVESTITURE

In 1982, the U.S. Justice Department's 1974 anti-trust suit against AT&T was settled in the U.S. District Court in Washington, D.C., before presiding Judge Harold H. Greene. The trial, begun in 1981, was halted early in 1982 with the filing of the Modification of Final Judgment (MFJ). Rather than consider it a modification to the 1956 Consent Decree, however, Judge Greene insisted that it be considered a separate settlement, and therefore subject to public comment.

Over 600 parties provided comments to the Court. The FCC also requested comments on the impact of the MFJ on various FCC proceedings.

A fundamental aspect of the settlement was that AT&T would divest of all Bell Operating Companies in which it had a majority ownership, amounting to some $80 billion or two-thirds of its assets. AT&T, in exchange, would be allowed to offer value-added and unregulated services, business areas which were forbidden to AT&T under the 1956 Consent Decree.

Negotiations on various details ensued, as the task of taking the agreement in principle through to implementation was enormous. For example, the divestiture had a potential impact on non-Bell local operating companies as well. In May 1982, AT&T and the independent telephone industry began intensive planning for conversion of the local exchange boundaries into LATA's, or Local Access and Transport Areas.

Opponents to the MFJ had argued that AT&T would retain monopoly power in several markets, especially interexchange telephone service. Judge Greene rejected these arguments because AT&T would no longer be able to cross-subsidize services with local exchange telephone revenues.

On June 1982, Judge Greene gave the Justice Department and AT&T ten days to accept or reject his proposed modifications, which involved ten revisions to the settlement. Generally speaking, these revisions provided greater freedom for the operating companies and ensured they would remain financially viable. The modifications were accepted.

In October 1982, AT&T filed the LATA plan. Operating companies are permitted to handle only intra-LATA traffic, and it remains under state regulation. All inter-LATA traffic is handled by AT&T and the other interstate carriers.

Included in this arrangement is the imposition of a uniform access charge arrangement, under which interstate carriers will be uniformly charged for Operating Company costs incurred in connecting subscribers to interstate carriers.

In December 1982, the proposed divestiture plan was filed with the Court. It provided for seven regional holding companies consolidating the Bell Operating Companies. Each Bell Company was to establish two subsidiaries, one for interexchange service and one for terminal equipment. On the date of divestiture (January 1984), these subsidiaries would be transferred to AT&T.

Further modifications to the MFJ followed during 1983. Under the MFJ, the BOC's must offer equal access to all inter-LATA carriers by September 1, 1986 (the process is actually a phase-in between now and then). However, until equal access is phased in to each LATA, the BOC's will be allowed, but not required, to route to AT&T all inter-LATA calls for which a carrier has not been designated.

IMPLICATIONS FOR LOCAL SERVICE

Several recent FCC decisions have caused concern among state commissions and state governments, in spite of the creation of a Joint Board to reexamine the rules for interstate/intrastate separations or allocations of exchange plant investment. As a result, legislative action is underway before both the House of Representatives and the Senate.

In mid-1983, the FCC responded to a petition by the State of Michigan asking for a review of the cumulative effects of certain federal decisions on local rates and the availability of local service. The study which followed (Docket CC 83-788) concluded that:

- The cumulative effects of the decisions addressed amount to only $6.80 per month in 1989 (a compound annual growth rate of 6% per year).
- There is no evidence that federal decisions will cause residential subscribers to discontinue service, and thus threaten universal service.

In January 1984, the Congressional Budget Office (CBO) of the United States Congress published a Staff Working Paper entitled "Local Telephone Rates: Issues and Alternatives". This paper compares the FCC access charge decision in Docket CC 78-72 with legislative proposals pending before the Congress. In keeping with the Congressional Budget Office's mandate to provide objective and non-partisan analysis, the study did not make recommendations. However, it provides an excellent review of the access charge proceedings, and contains much useful data which will be incorporated into later stages of this study.

While the paper is for the most part objective, it does make one interesting comment on the FCC's access charge proceedings. At page 2, it notes: "In its 'access charge' decision, the FCC addressed the manner in which costs are recovered rather than the manner in which costs are allocated".

One aspect which was not covered by either the FCC or CBO studies was the possibility of extensive "total bypass" of the local and terrestrial long-haul network if access charges become sufficiently high. Even now, shared-use teleports providing direct Domsat access are becoming a reality in certain locations in the U.S.

MARKETING STRATEGIES AND MARKET SHARES

INTRODUCTION

In this chapter, we provide a synopsis of the marketing strategies adopted by the major competitors, MCI and Sprint (now GTE-Sprint), in the early days of competition and the results of those strategies in terms of the market shares attained. As more competition was permitted and as less stringent entry and rate of return regulation was applied, many smaller resale carriers entered the market.

The information in this chapter was gathered from several sources. Since little data is made public, we relied on discussions with individuals from MCI, GTE-Sprint, the American Council for Competitive Telecommunications (ACCT), the Association of Long Distance Telephone Companies (ALTEL), the National Association of Regulatory Utility Commissioners (NARUC) and staff from several state regulatory commissions to enhance that obtained from published sources. A list of individuals interviewed during the course of the study is contained in Appendix C.

The consultants were also privileged to attend a meeting of the NARUC Sub-Committee on Communications at which GTE-Sprint, MCI and AT&T made presentations.

This chapter also provides an overview of the changing market shares attained by the specialized common carriers and resellers of telecommunications services beginning with the startup in 1972 of Microwave Communications Inc. (MCI).

MCI - Initial Application

MCI filed a request with the FCC for authorization as a common carrier in 1963. MCI proposed to build a microwave system between St. Louis and Chicago to offer voice, data transmission, facsimile and other services over private lines in competition with AT&T.

The application was opposed by AT&T, Illinois Bell, Southwestern Bell, Western Union and GTE. In August of 1979, the final approval was granted. The FCC deferred arguments on interconnection, but did announce that carriers would be expected to provide local loops unless it was infeasible to do so.

In 1971, the Commission denied requests from the carriers for additional hearings. By this time, MCI had modified and extended its plans. Modified construction permits were granted to MCI in 1971.

INITIAL STAGES OF COMPETITION - PRIVATE LINE

MCI's service started up in January, 1972. As noted by Brock(1), MCI's original construction permit authorized a network with a capital cost of less than $2 million and which took approximately seven months to build. However, the legal and regulatory proceedings which led up to the acquisition of that permit took seven years and cost MCI approximately $10 million.

Faced with more applications, the FCC initiated its Specialized Common Carrier proceeding (Docket 18920) described earlier.

By the end of 1973, MCI had a coast-to-coast network costing $80 million and serving 40 cities. Southern Pacific Communications Company had completed its coast-to-coast microwave system in 1973. Datran also opened its all-digital microwave network in 1973.

During this period, interconnection was still a problem. As described earlier, the Bell Operating Companies (BOCs) tried to bring interconnection under state jurisdiction by filing tariffs with the state commissions. The FCC ruled against Bell in 1974, but full interconnection was not obtained until 1976.

AT&T modified its tariff as a competitive response to this initial competition. Its series 11,000 private line tariffs provided discounts in heavy demand areas, but they were rejected by the FCC. AT&T then filed its Hi-Lo tariff, based on regional population density. Again, the FCC rejected the tariff. Finally, the Multi-Schedule Private Line (MPL) tariff, which contained a decreasing rate per mile with increasing length of haul, was filed.

AT&T also made efforts to compete head-on in certain areas. For example, soon after Datran's application was approved to build a digital data network, AT&T began building a digital data network of its own. The tariffs which AT&T filed in 1974 for its data network were much lower than comparable analog private line tariffs. In 1976, an FCC Administrative Law Judge found the tariff to be unjustified and predatory. This was affirmed by the Commission in 1977. However, by this time, Datran had gone bankrupt, and its network was purchased by SPC.

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(1) Brock, Gerald W., The Telecommunications Industry - The Dynamics of Market Structure, Harvard University Press, 1981.

COMPETITIVE STRATEGIES-PRIVATE LINE

MCI Strategies

When MCI began operations, it was restricted by regulation to "pure private line", and by choice to the voice segment of that private line business. In MCI's view, data communications users were concerned about quality more than they were concerned about cost. MCI was struggling to sell private line voice circuits at $0.50 per mile per month. It used a direct sales force to contact major users of telecommunications services, and obtained some part of the business of about 50% of those major users. It had a good relationship with the financial industry - stockbrokers and banks - and penetrated that market quite successfully. Savings in these early days were approximately 20%.

During the 1972-75 period, MCI was trying to broaden the definition of private line to include Common Control Switching Arrangements (CCSA) and Foreign Exchange (FX) and even Centrex. However, the pricing of the Telpak service by AT&T made it difficult to compete for large-volume users.

By 1974-75, MCI's lenders were extremely concerned about the company's viability. Average circuit capital costs were in the $2000 range, but revenue was only some $300 per month. Accordingly, MCI undertook an experiment in Texas which linked 10 cities in the Dallas area with Washington. It was like a shared private line service, on a dial-up basis. Because of the lack of entry regulation in Texas, it was an ideal location for this initiative. MCI used telephone selling to market this service, and attracted about 200 customers per month.

MCI also introduced a hard-wired shared FX in competition with WATS. It provided unlimited usage for a charge of $900/month. Beginning initially with 14-15 cities, this offering was successful from the very first. The method of marketing it, however, was very different from the method of marketing the dial-up shared private line service. Because of the greater commitment in terms of a flat rate of $900 per month, a written proposal was the approach used to market the service.

The dial-up shared private line, or Execunet, service was subjected to several regulatory and legal proceedings, as described earlier. Full-scale marketing of this "public switched" service did not begin until 1978.

Southern Pacific Strategies

Southern Pacific had its own private network along its railway right-of-way from Oregon to St. Louis. With the Specialized Common Carrier Decision, it extended its microwave network to the east coast. It concentrated its limited marketing efforts on private line business service until MCI successfully launched its Execunet service.

Datran Strategies

Datran constructed a coast-to-coast digital data network and began to offer service in 1973. It was faced with direct competition from AT&T which constructed its own digital data network and offered service at rates much lower than comparable analog private line service. In 1976, Datran went into bankruptcy and its network was sold to Southern Pacific.

AT&T Strategies

The Bell Operating Companies tried to bring interconnection under state jurisdiction by filing tariffs with the state commissions. The FCC ruled against Bell in 1974, but full interconnection to the Specialized Common Carriers was not provided until 1976.

AT&T also modified its tariff as a competitive response to intitial private line competition. Similar to its Telpak tariff which was filed in response to the "Above 890" decision, AT&T filed its Series 11,000 private line tariffs in response to the Specialized Common Carrier Decision. This tariff provided lower discounts in heavy demand areas in order to prevent cream-skimming. The FCC rejected the tariff. AT&T then filed its Hi-Lo tariff, which provided lower rates in high-density areas and higher rates in low-density areas. Again the FCC rejected the tariff. Finally, the Multi-Schedule Private Line (MPL) tariff was filed. This tariff provided a decreasing rate per mile with increasing length of haul.

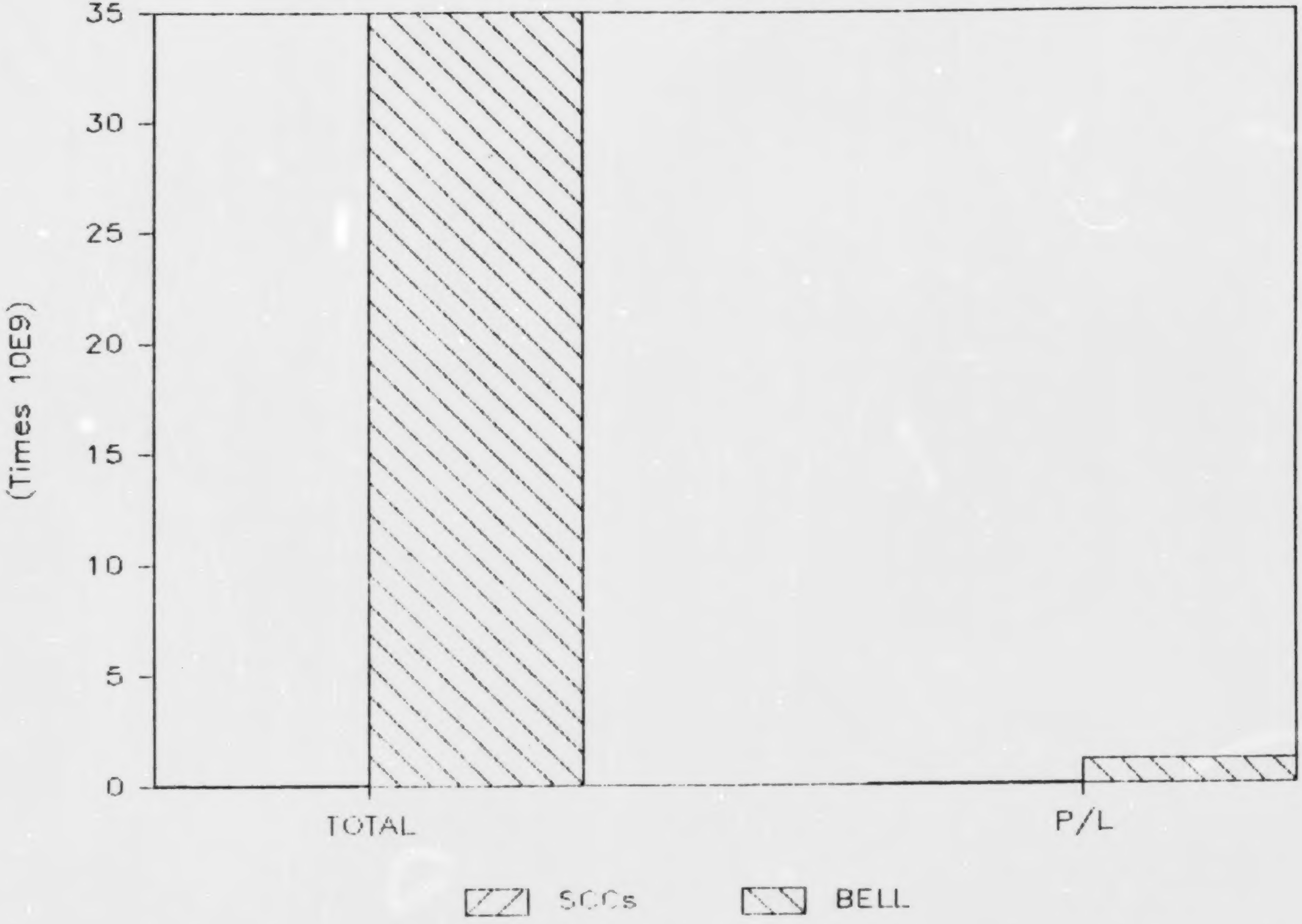
As described earlier, AT&T also constructed its own data network in an apparent response to Datran. The tariffs filed by AT&T, which were much lower than comparable analog private line tariffs, were subsequently found by the FCC to be unjustified and predatory.

Market Shares in 1975

In 1975, total telephone industry revenues were $35 billion, of which Bell received some $29.6 billion, or 84%. Interstate private line accounted for some $1.1 billion or 3% of total revenues. Specialized common carriers received a total of $35 million - 3% of the private line market or 0.1% of total telephone revenues. Exhibit 2, overleaf, shows the specialized common carriers market shares compared to total private line and total industry revenues.

EXHIBIT 2

MARKET SHARES IN 1975



"SHARED PRIVATE LINE"

MCI introduced its Execunet service in 1975. It was found unlawful, appealed, and a stay was granted. In 1976, the FCC again found it unlawful. This time, MCI's appeal earned it only a partial stay of the order. It could continue to provide service to its existing customers. In July 1977, the Appeal Court reversed the decision. However, the interconnection issue still had to be resolved. This took until 1978.

Market Structure in 1978

In Docket CC 79-252 (Competitive Carrier), the Commission provides a helpful overview of the structure of the industry. The Bell System, including the 23 associated companies, Western Electric, Bell Labs and the Long Lines Department had assets of $103 billion and revenues of $41 billion.

The Other Common Carriers included four basic types. They were: (1)the SCC's; (2) the Domsats; (3) resale (including value-added) carriers; and (4) the video relay carriers.

MCI and SPC offered coast-to-coast service as specialized common carriers, while United States Transmission Systems, Western Telecommunications and CPI Microwave (owned by Western Union) provided service on a regional basis.

Three entities at that time provided domestic satellite services on their own facilities, including RCA Americom, Western Union and the jointly-provided AT&T/GTE system. In addition, other companies provided service by combining their own earth stations with the resale of satellite capacity from the Domsats. Examples of these included American Satellite Corporation (Amsat), Southern Satellite Systems, United Video and Eastern Microwave.

At that time, seven resale carriers had been authorized. They were ITT-USTS, ITT Domestic Transmission Systems, Graphnet Systems Inc., Telenet Systems Inc., Tymenet, RCA Global Systems Inc. and DHL Communications Inc.

THE ERA OF MTS COMPETITION

The regulatory and legal proceedings with respect to Excunet and interconnection to Excunet were not resolved until 1978. The Appeal Court rulings on these two issues had the effect of opening public switched services to competition. It also challenged the economic structure of the industry which, until that time, was assumed to be using excess revenues from monopoly toll service to cross-subsidize the provision of local service.

MCI Strategies

Even in the early post-Excunet period, MCI did not develop any sophisticated marketing strategies or gather marketing intelligence. They employed from 200 to 300 outside sales representatives on commission during the 1978-1980 period. These representatives were not even assigned exclusive territories. Large users were the main target market. There were always more customers than capacity during this period, so marketing the service was not a problem.

In 1980, MCI conducted residential test marketing in Denver and Cincinnati. The results of these tests were so promising that MCI turned much of its efforts to developing the residential market. To its surprise, mass-media advertising aimed at the residential market also developed the commercial market - in fact, developed it to such an extent that they couldn't handle the volume of business generated.

MCI's strategy in the 1980-83 period was to offer cheap message toll service to all customers, and to lease lines and resell WATS to reach areas where it did not have its own facilities. In its view, it was pragmatic and aggressive, and it did not feel it had to be sophisticated. Towards the end of 1983, however, with a billion dollar construction program, broadband digital capacity and fibre optic trunks, MCI has assigned the marketing function a much higher priority. It is integrating nationwide paging, electronic mail, voice and data services in order to provide a sophisticated communications service to its customers. It is also entering the cellular business by competing for licences in major market areas.

MCI has experienced steady growth in revenues and earnings since Execunet II. From its 1979 to 1983 fiscal years, revenues have increased from $95 million to $1,073 million annually. Net income after tax has grown from $3.5 million to $171 million during this same period. Exhibit 3, overleaf, illustrates this strong growth in revenues and earnings.

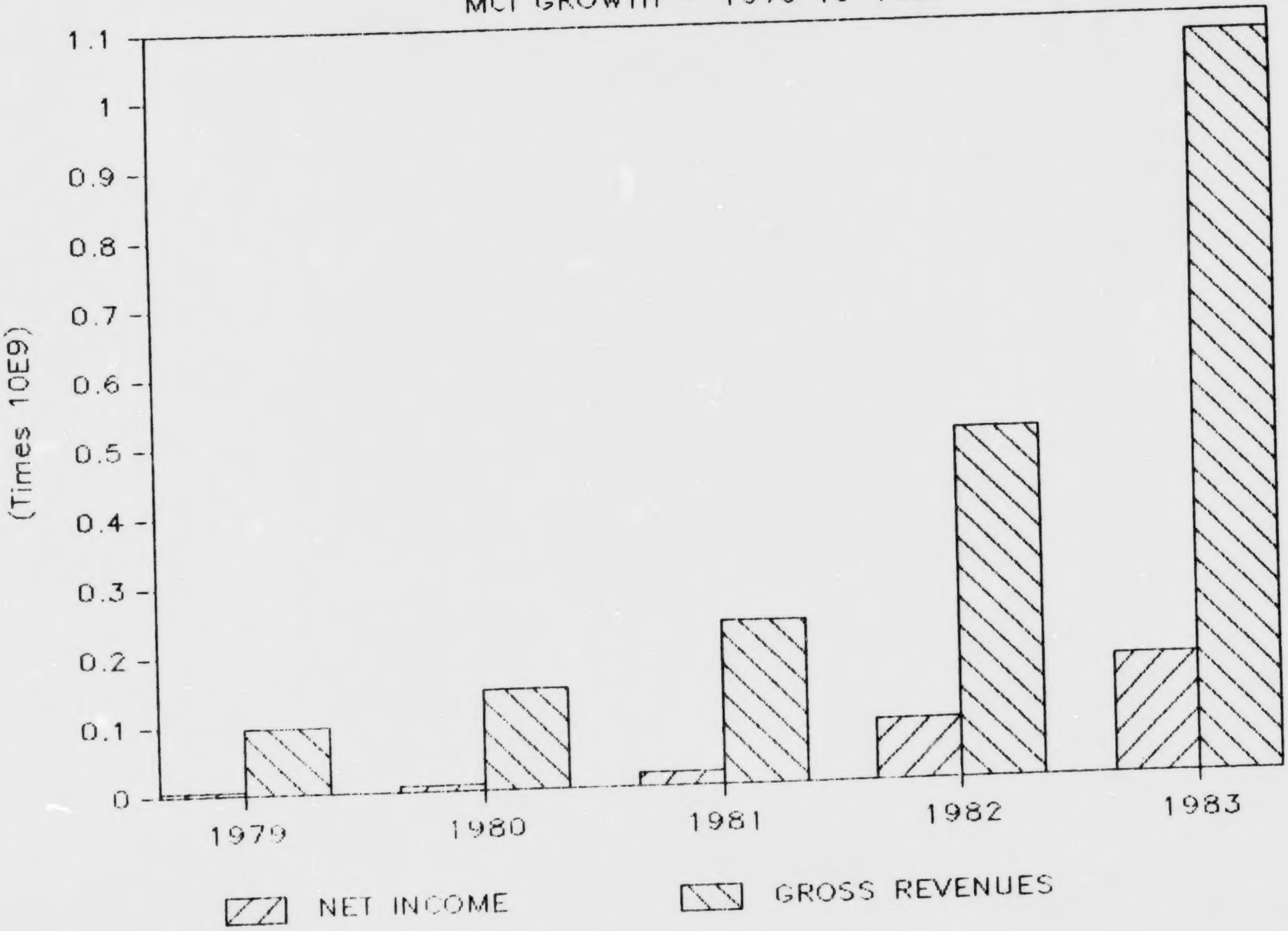
Southern Pacific/GTE-Sprint

Following the Execunet II Decision, Sprint began to market additional services to its existing corporate/business customers. These were sold door to door by outside sales representatives. No sophisticated marketing strategies or marketing plans were developed.

In the 1979-80 period, Sprint discovered that it had excess capacity particularly in off-peak hours, and it began to market its services to residential customers. The rates offered to residential customers were heavily discounted from Sprint's daytime rates, of the order of 40% discounts in the evening hours, increasing to 60% at night.

EXHIBIT 3

MCI GROWTH – 1979 TO 1983



Sprint also continued to expand its network, extending it from the largest cities to medium and smaller sized communities. At the present time, it provides service using its own facilities to 353 cities and communities in the U.S. By reselling AT&T's WATS lines, it also has universal termination, so that any telephone in the continental U.S. can be accessed through Sprint's service.

In 1981, Sprint altered its marketing approach to include a significant amount of media advertising, including TV, radio and newspaper. In large part, it appears that Sprint was following the lead of MCI in this respect. Also like MCI, Sprint is restructuring its service offerings to provide a much more comprehensive range of services to its corporate and residential customers.

In 1983, GTE and Southern Pacific reached an agreement under which GTE would purchase Sprint as a going concern from Southern Pacific. GTE entered into a Consent Decree with the U.S. Justice Department with respect to this purchase. As in the case of the AT&T Modification of Final Judgment, the consent decree requires the approval of the courts. Judge Greene has not yet issued his decision with respect to the approval of the Consent Decree. Accordingly, even though the purchase closed in mid-1983, GTE and Sprint are required to document all inter-company transactions so that, if necessary, the acquisition can be reversed.

At latest count, in early 1984, Sprint had 4,800 employees, and served just over one million customers of which 862 thousand were residential customers and 234 thousand were business customers.

AT&T Strategies

AT&T staff were not available to discuss competitive strategies. Accordingly, the findings which follow are based in large part on a presentation which was made by AT&T to a recent NARUC meeting in Washington.

AT&T is concerned that it is facing competition from a wide range of competitors. These include:

- SCCs
- DOMSATS
- VANS
- Resellers
- Private Microwave
- Teleports

In its presentation to NARUC, AT&T expressed concern about the rate of growth of the Other Common Carriers. In Exhibit 4, overleaf, we provide a table prepared by AT&T which shows the growth in revenues, assets, and customers of the Other Common Carriers. AT&T expressed its concern that the Other Common Carriers had been able to penetrate a significant portion of their target markets. In the view of AT&T, the OCC's target markets included the most profitable segments of the telecommunications market, namely metropolitan areas, the $25 per month and over residential subscribers and the $50 per month and over business subscribers. AT&T provided statistics which showed that, in the case of residential subscribers, this target market accounted for only 10% of households but 51% of interstate MTS revenues. Similarly, their statistics showed that only 13% of business locations spent over $50 per month on interstate MTS, but these locations accounted for 90% of total business MTS revenue. The presentation by AT&T indicated that as of January 1, 1984, the OCCs were serving 3.3 million residential customers and 0.5 million business customers. Accordingly, AT&T claimed that the OCCs have achieved in the range of 25% of the markets they have targeted.

AT&T stresses that it serves all residential and business customers and it plans to continue to do so, in spite of the competitive environment. It states that it requires an equal opportunity to compete. In particular, it objects to what it referred to as "asymmetric regulation". AT&T is required to provide a significant notice of new tariffs or tariff changes, to provide supporting cost data, to obtain construction program approvals, and its rate of return is regulated. It points out that most competitors have no service constraints, no notice periods, no requirement to file supporting cost data, no construction approval requirement, no rate of return regulation, and most significantly, no requirement to file tariffs.

The FCC has recently initiated a Notice of Inquiry into the long run regulation of AT&T's basic domestic interstate services in CC Docket 83-1147. Comments are due in this proceeding in early April. The major issues in this proceeding are as follows:

- Costs and benefits of current regulation
- Options for reduced regulation of AT&T
- Conditions to pursue options
- Assessment of AT&T future market power

Outsiders estimate that, overall, AT&T still retains a market share of 92-94% of the interstate long distance traffic.

EXHIBIT 4

OCC GROWTH *

	1978	1980	1982	1983
REVENUES (Millions)	270	630	2000	3200
ASSETS (Billions)	0.5	2	3-4	4-5
CUSTOMERS (Millions)	0.01	0.2	2.0	3.8

* Source: AT&T

Changing Market Shares

In addition to the data provided to NARUC by AT&T, data was obtained from several other sources. For example, H.N. Jasper, Executive Vice-President of ACCT, presented the data contained in Exhibit 5,overleaf, to the Senate Committee on the Judiciary in June 1981. More recent estimates were published by New York broker Sanford C. Bernstein and Co. for 1982 (Exhibit 6, overleaf) and by the Gartner Group for 1983 (Exhibit 7, overleaf). These estimates clearly illustrate the dominant position of AT&T in this market in spite of significant growth by the Other Common Carriers.

VIEWS OF THE TRADE ASSOCIATIONS

There are two major trade associations representing the interests of Specialized Common Carriers and resellers. The American Council for Competitive Telecommunications (ACCT) was formed in May of 1976 in response to a legislative threat which would have eliminated competition in message toll service (the so-called "Bell Bill"). It represents the interests of the Specialized Common Carriers including MCI, Sprint, SBS, ITT, etc., with respect only to legislative matters before Congress. ACCT is not involved in filings or representations before the FCC.

In the view of Council executives, provided that the existing phasing in of access charges is maintained until equal access is accomplished, the industry should continue its rapid growth pattern of recent years. MCI and Sprint are both poised to make significant gains. MCI has recently raised $1 billion for capital expansion. Similarly, Sprint, with the financial resources of GTE available to it, should have the capability to expand its capacity quite rapidly.

A distinction is made between what are termed "facilities-based carriers" and "resellers". Whether this is a significant distinction is questionable, since even the facilities-based carriers resell AT&T's services. For example, MCI, in addition to providing services on its own facilities, is actually the largest reseller of AT&T's services. U.S. Telephone is the only pure reseller which is a member of ACCT. However, Council executives noted that U.S. Telephone as well as Allnet and Lexitel are talking about getting into facilities. ACCT executives noted that the pure resellers are most prevalent in the states of Texas, New York, Florida and California. However, it was their view that the future for pure resellers is limited as the margins available for reselling WATS as MTS are declining with increasing competition.

The Association of Long Distance Telephone Companies (ALTEL) represents primarily the interests of the pure resellers of telecommunications services. It represents the interests of the industry before both federal and state regulators and legislators.

EXHIBIT 5

1980 ESTIMATED MARKET SHARES FOR LONG DISTANCE REVENUE

CARRIER OR GROUP	REVENUES IN $('000,000)
VIDEO CARRIERS	40
VALUE-ADDED CARRIERS	75
DOMSATS	110
SCCs	400
INDEPENDENTS	8200

EXHIBIT 6

MARKET SHARES - LONG DISTANCE REVENUES*

	LONG DISTANCE REVENUES EST 1982	NUMBER OF CUSTOMERS
AT&T	$33,000,000,000	85000000
MCI	$900,000,000	1050000
Sprint	$390,000,000	535000
ITT	$125,000,000	53000
U.S. Telephone	$100,000,000	62000
Combined Network	$60,000,000	55000
Western Union	$26,000,000	70000

* Source: New York Times, December 16, 1983, Page D1
Estimates attributed to Sanford C. Berstein & Co.

EXHIBIT 7

MARKET SHARES - LONG DISTANCE REVENUES*

	LONG DISTANCE REVENUES EST 1983	NUMBER OF CUSTOMERS
AT&T	$34,000,000,000	86000000
MCI	$1,500,000,000	1500000
Sprint	$800,000,000	900000
Allnet	$180,000,000	150000
ITT	$165,000,000	125000
Western Union	$60,000,000	110000
US Telephone	$135,000,000	90000
SBS Skyline	N/A	90000

* Source: U. S. News and World Report, January 30, 1984, p. 55
Estimates attributed to Fritz Ringling, Consultant, Gartner Group

Representatives of ALTEL expressed the opinion that there were between 300 and 400 resellers in operation throughout the United States. There is a great range in terms of the sizes of those competitors. The largest three pure resellers represent approximately 50% of total industry revenues, and the largest 50 represent approximately 80% of total industry revenues. Total industry gross revenues were estimated to be in the range of $350-600 million annually.

In the view of ALTEL, the successful resellers are successful marketers, providing a mix of services which are tailored to the needs of small segments of the market. In many cases, they are providing specialized services to markets which are too small to be of interest to the major carriers. With respect to technical competence, the resellers are innovators in the application of technology, and in the integration of technology developed by others to meet the needs of specialized user groups. In the view of ALTEL, resellers are actually helping the telephone companies to increase their market share in smaller markets, because in most cases it is the facilities of AT&T which are being resold.

In the medium term, ALTEL realizes that there will be a weeding-out process because the implementation of access charges will eliminate in part the very slender margins with which the resellers now operate. However, in their view, alternative long distance providers will remain in large numbers, probably in the hundreds.

FUTURE PLANS OF THE MAJOR COMPETITORS

In presentations to the NARUC Staff Sub-Committee on Communications, both MCI and Sprint indicated that they have ambitions to become national telephone companies. MCI wants to offer service to every telephone in the U.S. It looks at the market on a national basis. Sprint wants to carry all the traffic originated by its customers, whether it be intrastate inter-LATA, or even intra-LATA. AT&T, however, is not looking currently at intra-LATA competition, but it does not want to be precluded from offering this service in the future.

Sprint was adamant that competition at the state level is already in place. It has sought certification in 23 states as well as Texas and the District of Columbia where no certification is required. It has received certification in eight states of the 23. Of the total of ten states in which it is offering intrastate toll services, seven have also permitted intra-LATA competition. Competition is forbidden by legislation in the states of Colorado, North Carolina and Virginia, but in all three, legislation has been introduced to permit competition. Sprint noted that intra-LATA competition is difficult for Specialized Common Carriers, but it is determined to carry all the traffic originated by its customers.

The representative from MCI noted that the LATA was not intended to be a boundary for the local exchange, but was designed to separate assets in the divestiture. If transport charges are kept low enough, MCI will not construct multiple points of access within the LATAs, but will use local exchange carriers instead. In MCI's view, large users within the LATAs will bypass local distribution facilities if they get "uneconomic signals".

AT&T will continue its efforts to bring about regulatory reform and to avoid what it terms "asymmetric regulation". It is very concerned about cream-skimming. In what appears to be an inconsistent approach, AT&T stated that it would like to continue to price-average, but also to be competitive in target markets. This apparent inconsistency is explained in part by AT&T's theory that the costs of operation will come down under "self-regulation". AT&T states that it is not now technically possible for it to compete in intra-LATA toll, and it has no present plans to compete at that level.

IMPACT ON LOCAL RATES

INTRODUCTION

In this chapter, we examine the change in local rates over time throughout the United States. The basis for this examination is rates published by NARUC in 1972 and 1982. We compare each of the business and residential single line flat rate exchange service rates, where that service is offered, in 1972 and 1982.

Having developed some ranges and averages for each of business and residential local exchange service across all states, we then select states where competition in recent years has been strongest, and we compare the increases with states where competition has apparently not been as strong. The basis of the comparison is the tariffed rate for a base rate area of approximately 100,000 telephones.

OVERVIEW OF CHANGES IN LOCAL RATES

In Exhibits 8 and 9, overleaf, we display graphically for each of the states, in alphabetical order, the actual monthly flat rate exchange rate for each of residential and business service in 1972 and 1982. The actual data which was used to prepare these bar graphs is contained in Exhibits 10 and 11, overleaf.

It is quite apparent that, taking all the states as one group, there is absolutely no pattern to the way in which local exchange rates have changed. In Exhibits 12 and 13, overleaf, we have displayed for each of the states, in alphabetical order, the ratio of 1982 to 1972 flat rate local exchange rates for each of the business and residential services. The actual data used to prepare these bar graphs is contained in Exhibits 14 and 15, overleaf. Again, there does not appear to be any trend or pattern to these changes in rates.

As shown in Exhibits 10 and 11, the range of residential local rates in 1972 was from $4.75 per month in Texas to $9.85 per month in California. The average residential rate in 1972 was $6.90. In 1982, residential rates ranged from $6.65 per month in Pennsylvania to $20.16 per month in Mississippi, with the average rate in 1982 being $10.87.

Similarly, the business exchange rates in 1972 averaged $16.91 per month, with a range from $11.50 per month in Texas to $22.00 per month in Montana. In 1982, the average was $25.10 per month, with the lowest rate being $14.06 per month in Pennsylvania and the highest rate being $48.98 in Mississipi.

EXHIBIT 8

COMPARISON OF BUSINESS RATES

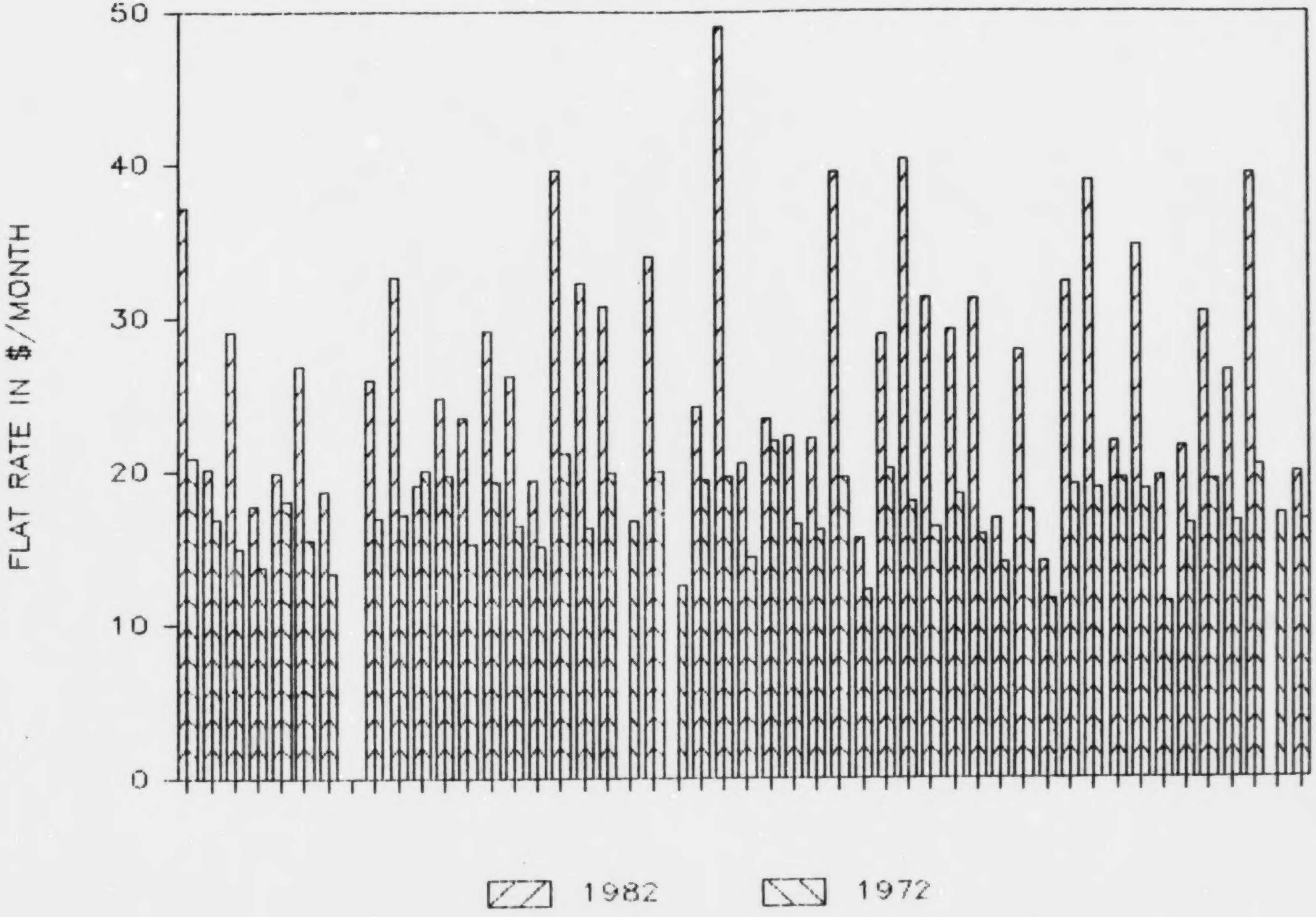


EXHIBIT 9

COMPARISON OF RESIDENTIAL RATES

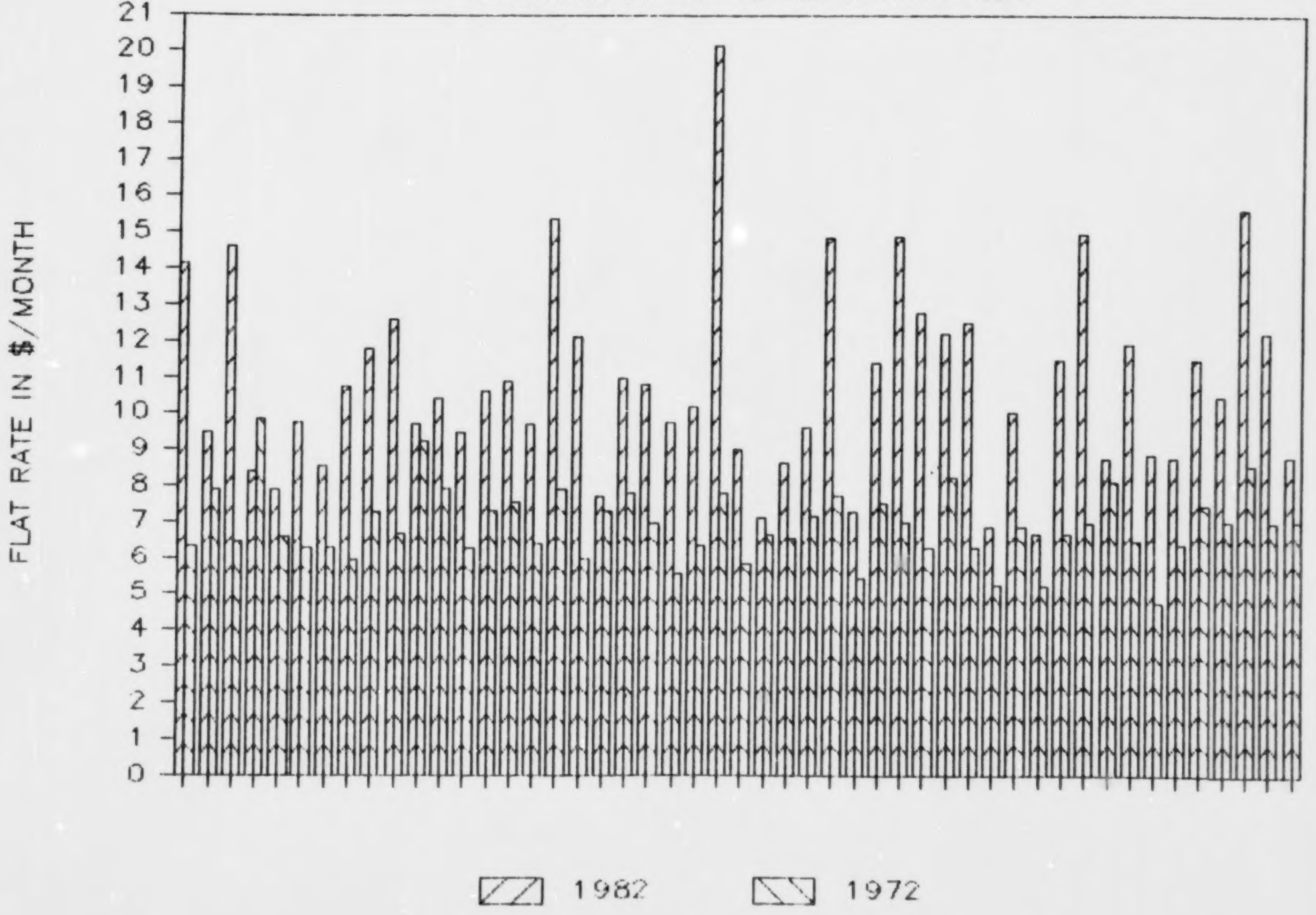


EXHIBIT 10

COMPARISON OF BUSINESS LOCAL EXCHANGE RATES

STATE	1982	1972
ALABAMA	$37.15	$20.90
ARIZONA	$20.13	$16.95
ARKANSAS	$29.10	$15.00
CALIFORNIA	$17.80	$13.80
COLORADO	$19.92	$18.05
CONNECTICUT	$26.92	$15.55
DELAWARE	$18.71	$13.40
DISTRICT OF COLUMBIA	N/A	N/A
FLORIDA	$26.00	$17.00
GEORGIA	$32.70	$17.25
HAWAII	$19.10	$20.10
IDAHO	$24.77	$19.75
ILLINOIS	$23.50	$15.35
INDIANA	$29.25	$19.40
IOWA	$26.25	$16.50
KANSAS	$19.45	$15.15
KENTUCKY	$39.67	$21.20
LOUISIANA	$32.35	$16.35
MAINE	$30.85	$19.95
MARYLAND	N/A	$16.85
MASSACHUSETTS	$34.10	$20.00
MICHIGAN	N/A	$12.55
MINNESOTA	$24.27	$19.50
MISSISSIPPI	$48.98	$19.70
MISSOURI	$20.60	$14.40
MONTANA	$23.43	$22.00
NEBRASKA	$22.30	$16.55
NEVADA	$22.20	$16.15
NEW HAMPSHIRE	$39.55	$19.60
NEW JERSEY	$15.65	$12.30
NEW MEXICO	$28.98	$20.15
NEW YORK	$40.31	$18.02
NORTH CAROLINA	$31.30	$16.35
NORTH DAKOTA	$29.25	$18.50
OHIO	$31.25	$15.90
OKLAHOMA	$16.95	$14.05
OREGON	$27.80	$17.50
PENNSYLVANIA	$14.06	$11.60
RHODE ISLAND	$32.30	$19.10
SOUTH CAROLINA	$38.95	$18.90
SOUTH DAKOTA	$21.90	$19.55
TENNESSEE	$34.70	$18.85
TEXAS	$19.66	$11.50
UTAH	$21.59	$16.60
VERMONT	$30.40	$19.50
VIRGINIA	$26.57	$16.75
WEST VIRGINIA	$39.41	$20.40
WISCONSIN	N/A	$17.25
WYOMING	$19.91	$16.80

EXHIBIT 11

COMPARISON OF RESIDENTIAL LOCAL EXCHANGE RATES

STATE	1982	1972
ALABAMA	$14.15	$6.33
ARIZONA	$9.50	$7.90
ARKANSAS	$14.60	$6.45
CALIFORNIA	$8.40	$9.85
COLORADO	$7.91	$6.60
CONNECTICUT	$9.74	$6.30
DELAWARE	$8.54	$6.30
DISTRICT OF COLUMBIA	$10.74	$5.95
FLORIDA	$11.75	$7.25
GEORGIA	$12.55	$6.65
HAWAII	$9.70	$9.20
IDAHO	$10.38	$7.90
ILLINOIS	$9.45	$6.25
INDIANA	$10.58	$7.30
IOWA	$10.85	$7.55
KANSAS	$9.70	$6.40
KENTUCKY	$15.34	$7.90
LOUISIANA	$12.10	$6.00
MAINE	$7.70	$7.30
MARYLAND	$10.95	$7.80
MASSACHUSETTS	$10.80	$6.95
MICHIGAN	$9.74	$5.60
MINNESOTA	$10.18	$6.35
MISSISSIPPI	$20.16	$7.80
MISSOURI	$9.00	$5.85
MONTANA	$7.14	$6.65
NEBRASKA	$8.65	$6.55
NEVADA	$9.60	$7.15
NEW HAMPSHIRE	$14.85	$7.75
NEW JERSEY	$7.30	$5.45
NEW MEXICO	$11.39	$7.55
NEW YORK	$14.88	$7.01
NORTH CAROLINA	$12.75	$6.30
NORTH DAKOTA	$12.20	$8.25
OHIO	$12.50	$6.30
OKLAHOMA	$6.85	$5.25
OREGON	$10.00	$6.85
PENNSYLVANIA	$6.65	$5.20
RHODE ISLAND	$11.45	$6.65
SOUTH CAROLINA	$14.95	$6.95
SOUTH DAKOTA	$8.75	$8.10
TENNESSEE	$11.90	$6.45
TEXAS	$8.86	$4.75
UTAH	$8.74	$6.35
VERMONT	$11.45	$7.45
VIRGINIA	$10.46	$7.00
WEST VIRGINIA	$15.63	$8.55
WISCONSIN	$12.20	$6.95
WYOMING	$8.76	$7.00

EXHIBIT 12

RATIO OF 1982:1972 BUSINESS RATES

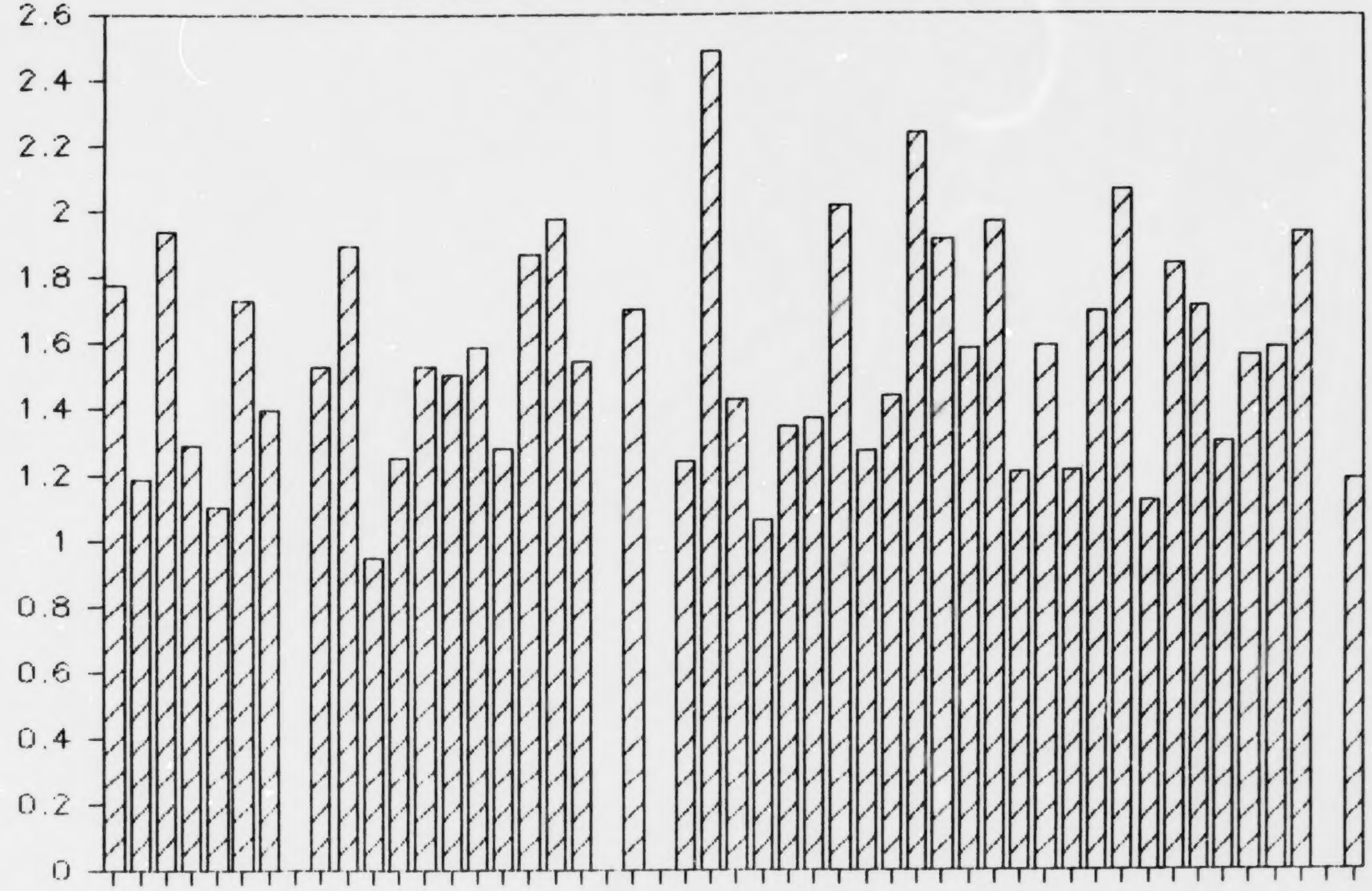


EXHIBIT 13

RATIO OF 1982:1972 RESIDENTIAL RATES

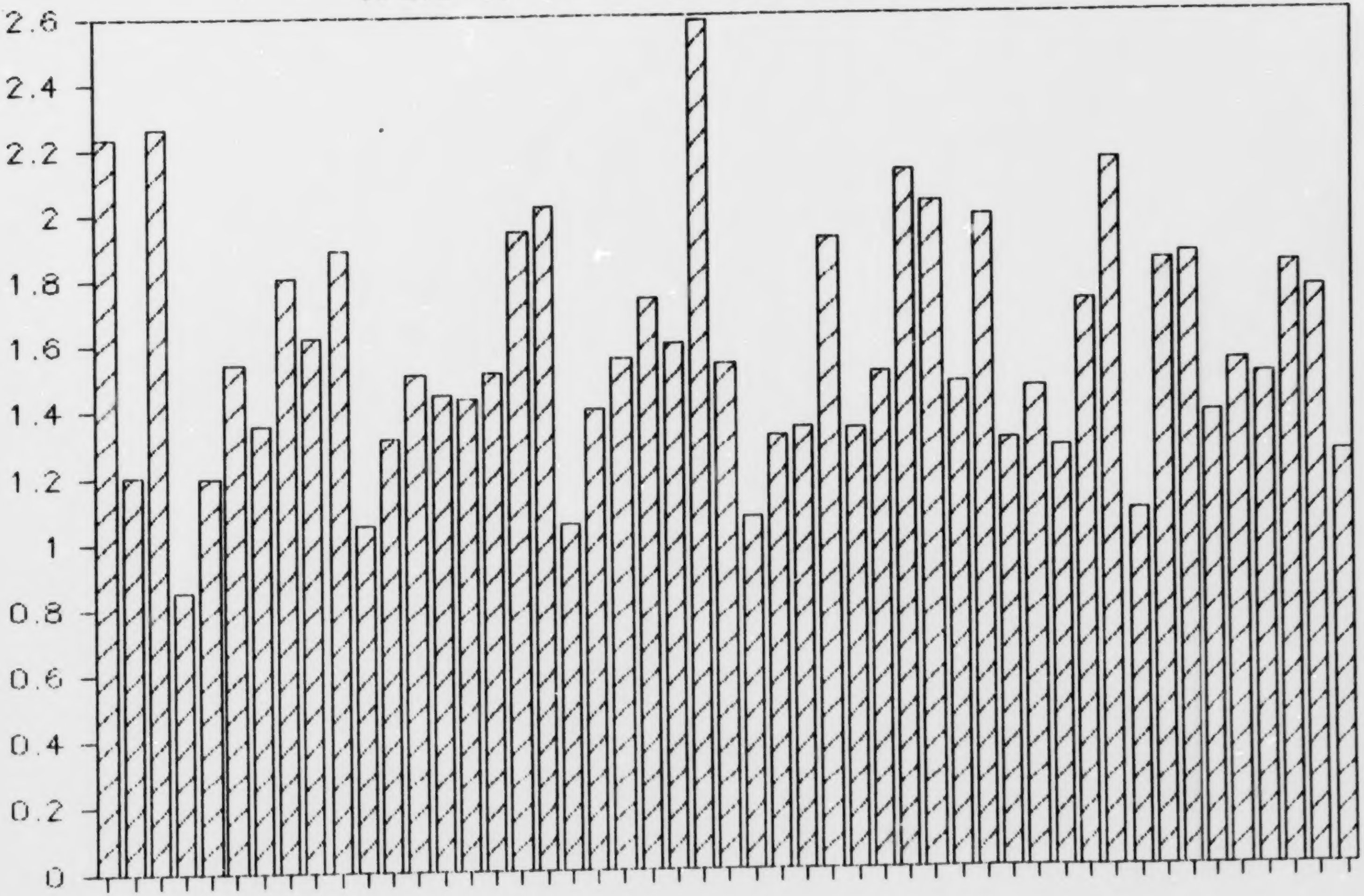


EXHIBIT 14

RATIO OF 1982:1972 BUSINESS LOCAL EXCHANGE RATES

STATE	RATIO
ALABAMA	1.78
ARIZONA	1.19
ARKANSAS	1.94
CALIFORNIA	1.29
COLORADO	1.10
CONNECTICUT	1.73
DELAWARE	1.40
DISTRICT OF COLUMBIA	N/A
FLORIDA	1.53
GEORGIA	1.90
HAWAII	0.95
IDAHO	1.25
ILLINOIS	1.53
INDIANA	1.51
IOWA	1.59
KANSAS	1.28
KENTUCKY	1.87
LOUISIANA	1.98
MAINE	1.55
MARYLAND	N/A
MASSACHUSETTS	1.71
MICHIGAN	N/A
MINNESOTA	1.24
MISSISSIPPI	2.49
MISSOURI	1.43
MONTANA	1.07
NEBRASKA	1.35
NEVADA	1.37
NEW HAMPSHIRE	2.02
NEW JERSEY	1.27
NEW MEXICO	1.44
NEW YORK	2.24
NORTH CAROLINA	1.91
NORTH DAKOTA	1.58
OHIO	1.97
OKLAHOMA	1.21
OREGON	1.59
PENNSYLVANIA	1.21
RHODE ISLAND	1.69
SOUTH CAROLINA	2.06
SOUTH DAKOTA	1.12
TENNESSEE	1.84
TEXAS	1.71
UTAH	1.30
VERMONT	1.56
VIRGINIA	1.59
WEST VIRGINIA	1.93
WISCONSIN	N/A
WYOMING	1.19

EXHIBIT 15

RATIO OF 1982:1972 RESIDENTIAL LOCAL EXCHANGE RATES

STATE	RATIO
ALABAMA	2.24
ARIZONA	1.20
ARKANSAS	2.26
CALIFORNIA	0.85
COLORADO	1.20
CONNECTICUT	1.55
DELAWARE	1.36
DISTRICT OF COLUMBIA	1.81
FLORIDA	1.62
GEORGIA	1.89
HAWAII	1.05
IDAHO	1.31
ILLINOIS	1.51
INDIANA	1.45
IOWA	1.44
KANSAS	1.52
KENTUCKY	1.94
LOUISIANA	2.02
MAINE	1.05
MARYLAND	1.40
MASSACHUSETTS	1.55
MICHIGAN	1.74
MINNESOTA	1.60
MISSISSIPPI	2.58
MISSOURI	1.54
MONTANA	1.07
NEBRASKA	1.32
NEVADA	1.34
NEW HAMPSHIRE	1.92
NEW JERSEY	1.34
NEW MEXICO	1.51
NEW YORK	2.12
NORTH CAROLINA	2.02
NORTH DAKOTA	1.48
OHIO	1.98
OKLAHOMA	1.30
OREGON	1.46
PENNSYLVANIA	1.28
RHODE ISLAND	1.72
SOUTH CAROLINA	2.15
SOUTH DAKOTA	1.08
TENNESSEE	1.84
TEXAS	1.87
UTAH	1.38
VERMONT	1.54
VIRGINIA	1.49
WEST VIRGINIA	1.83
WISCONSIN	1.76
WYOMING	1.25

The increase in the average residential rate (and these are simple averages, not weighted by population), from 1972 to 1982 was 58%. The corresponding increase in average business local exchange rates was only 48%.

RATE INCREASES IN AREAS OF STRONG COMPETITION

It is generally accepted that the states of Texas, Florida, California and New York represent the areas of strongest competition in recent years. Exhibits 16 and 17, overleaf, illustrate the changes in local rates in these four states from 1972 to 1982 for business and residential local exchange service, respectively. The data for these graphs were obtained from Exhibits 10 and 11. The increases in percentage terms in these four states were as follows:

	Business	Residential
California	29	(15)
Florida	53	62
New York	124	112
Texas	71	87

The average of the increases in rates from 1972 to 1982 in these four states was 69% for business service and 62% for residential service.

CHANGES IN LOCAL RATES IN LESS COMPETITIVE STATES

In order to make the comparison with those states listed above, we have selected the states of Montana, Oklahoma, Oregon and Vermont. Exhibits 18 and 19, overleaf, provide a graphic representation of the changes in the level of local rates for each of business and residential services from 1972 to 1982. As with the competitive areas, we compare the increases in local rates in these four states from 1972 to 1982 as follows:

	Business	Residential
Montana	7	7
Oklahoma	21	30
Oregon	59	46
Vermont	56	54

The average of the increases in local residential rates over the 1972 to 1982 period in these four states was 34%, and the corresponding average increase for business service was 36%.

EXHIBIT 16

COMPARISON OF BUSINESS RATES

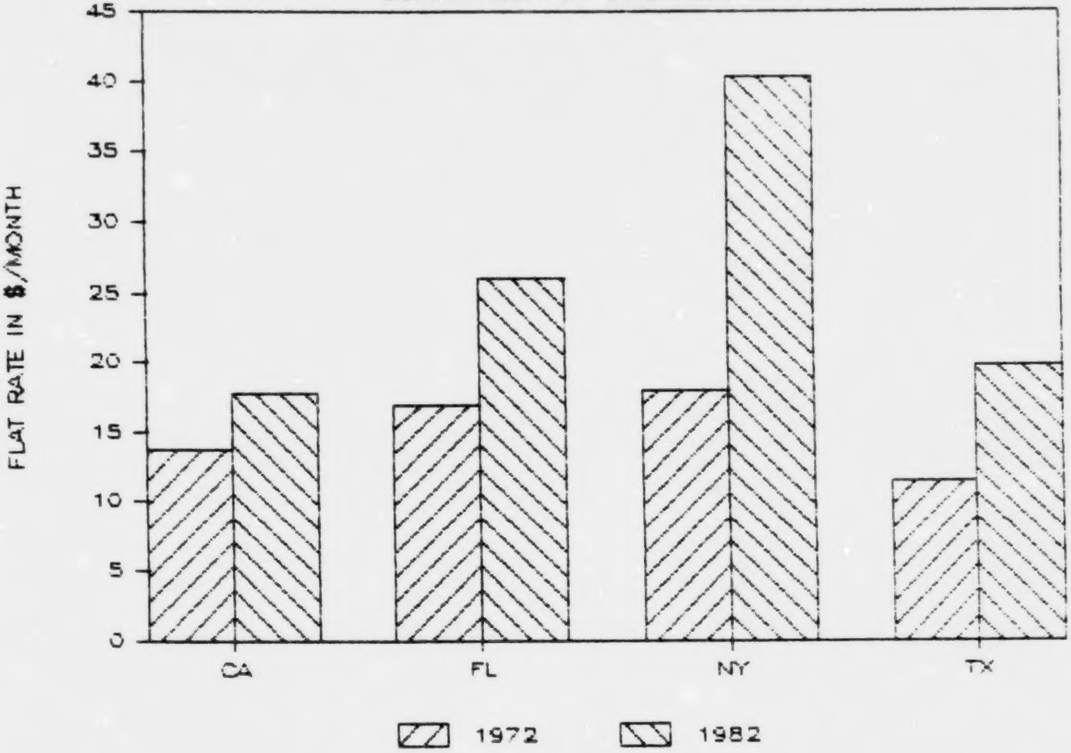


EXHIBIT 17

COMPARISON OF RESIDENTIAL RATES

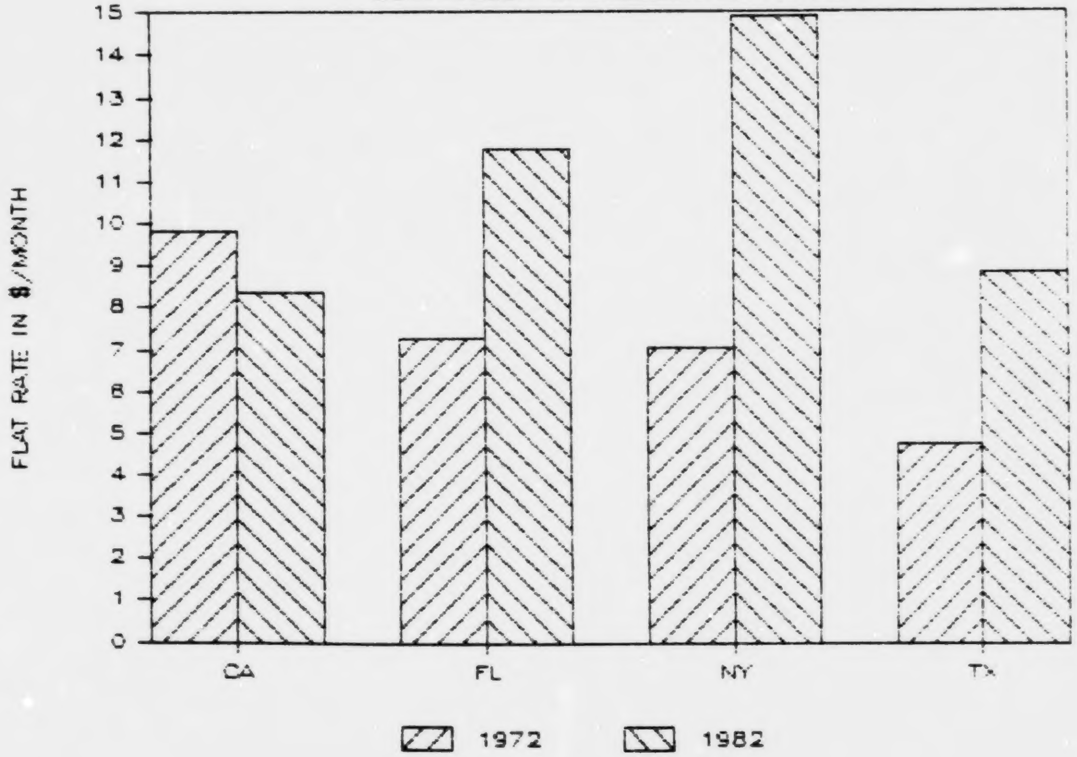


EXHIBIT 18

COMPARISON OF BUSINESS RATES

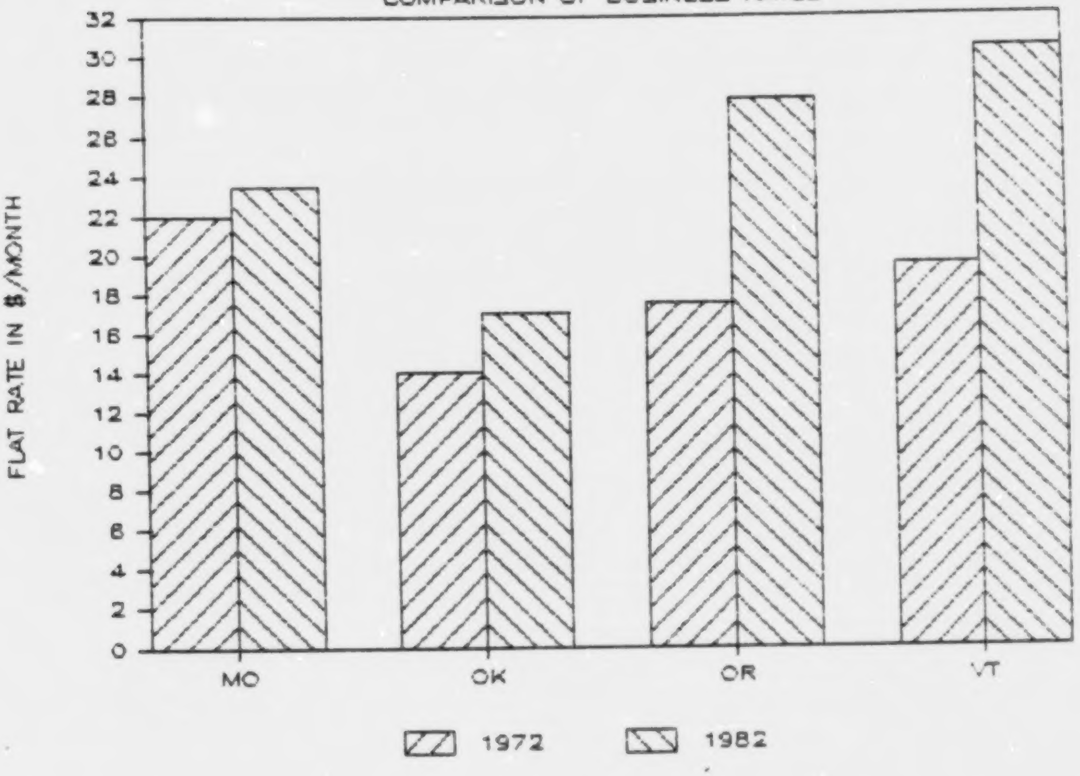
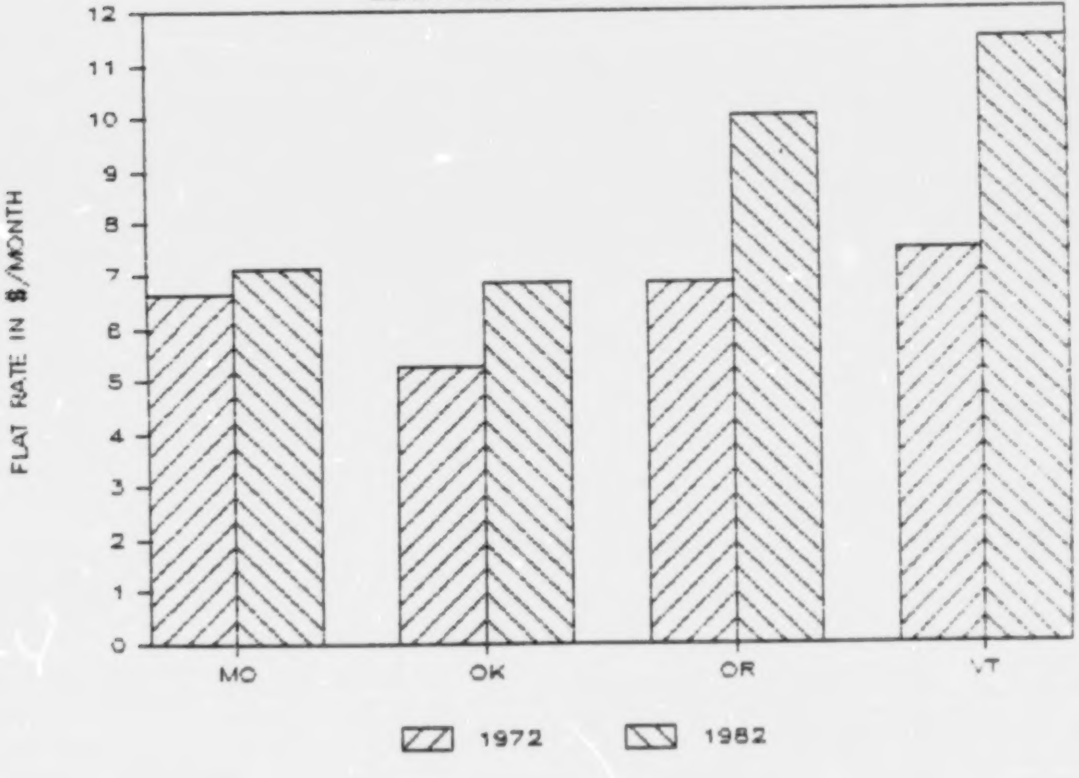


EXHIBIT 19

COMPARISON OF RESIDENTIAL RATES



APPARENT IMPACT OF COMPETITION

It must be emphasized that a measure such as the strength of competition in telecommunications is a highly subjective one, and accordingly, the choice of the states on which this comparison is based is a very tentative one. It should also be emphasized that a significant number of other factors are at play in the development of local rates. Not all state regulatory boards and commissions are working to a common set of objectives. Accordingly, both the choice of states and results of the comparison are open to question.

In spite of all the shortcomings in this analysis, the results do show that, on average, states in which competition appeared to be strong had a higher rate of increase in local rates over the period, particularly on business rates. The main question to be asked is whether these increases were of necessity, or were based on a desire of the state regulators to minimize the extent of cross-subsidy in those states where it was highest, or to miminize local rates in those states where it was lowest. However, there is additional information with respect to the structure of local rates available from studies by both the FCC and Congressional Budget Office. These studies are described below.

FCC DOCKET CC 83-788

On July 27, 1983, the FCC adopted a Notice of Inquiry in response to a petition by the State of Michigan asking for a review of the cumulative effects of certain federal decisions on local rates and the availability of local service.

The Michigan petition had requested investigation of the effects of:

- Preempting state control over depreciation for intrastate ratemaking (CC 79-105)
- Imposing interstate access charges (CC 78-72)
- Expensing station connections and amortizing embedded investment (CC 79-105)
- Eliminating interstate revenue requirements associated with embedded CPE (CC 80-286)
- The AT&T divestiture

Twenty-seven states and the District of Columbia responded to a request for information.

Commission staff found that, in almost all cases, revenue requests by exchange telephone companies vastly exceeded the actual revenue authorizations by state commissions. It found that the bulk of the current revenue increase requests by exchange telephone companies are linked to factors other than the federal decisions listed above.

The staff noted that the Commission's policies are designed to ensure the long run viability of universal service. It noted that there was a serious threat to universal service of uneconomic bypass and noted that in Texas, 39% of the Bell Operating Companies' largest customers are now bypassing and 17% more are planning to do so within the next 3 years.

As part of its analysis, the Commission staff looked at the impact on average residential bills over the 1981-1989 period. It calculated the major changes in average monthly revenue requirements to be as follows:

	1984	1989
Depreciation	$ .70	$ .33
Station Connections	- .35	- .85
CPE Decisions	.99	.88
Separations Changes	.20	1.27
Shift toward toll services	- .59	-2.29
Interstate Access	2.00	5.11
State Access	1.27	3.97
Other	.00	-.14
Total	$4.22	$8.28
Total Net of CPE Changes		6.80

With respect to telephone demand, Commission staff examined information on subscriber responses to price changes through the available economic studies and data on actual subscriber discontinuances. It noted that numerous studies have attempted to assess the impact of rate changes on telephone demand, and reviewed some 11 major studies during the course of this Docket. A list of the results of this review was provided in Table 2 of the staff report which is reproduced in Exhibit 20, overleaf. Commission staff concluded, based on the fact that most of the estimates fell below -.09, an increase in the cost of access is likely to have a small impact on the number of subscribers.

On December 1, 1983, in Order 83-567, the Commission adopted a staff report which reported on the investigation of the Common Carrier Bureau staff into the matter. The study concluded that FCC policies do not threaten universal service. Staff analysis concluded that:

- The cumulative effects of the decisions addressed amounts to only $6.80 per month in 1989 (a compound growth rate of 6% per year)

EXHIBIT 20

ACCESS DEMAND ELASTICITIES

			ELASTICITY ESTIMATES		
STUDY	STATE (CO.)	CUSTOMERS	SHORT RUN	1 YEAR	LONG RUN
Egan	AR,KS,MO,OK,TX	Bus	-0.01	-0.03	-0.07
Egan	AR,KS,MO,OK,TX	Res	-0.01	-0.03	-0.04
Doherty	NY (Bell)	All	-0.04	-0.09	-0.11
Carr	NY (Rochester)	Bus	NA	-0.05	NA
Carr	NY (Rochester)	Res	NA	-0.04	NA
DRI	CT (Bell)	Bus	-0.04	-0.13	-0.15
DRI	CT (Bell)	Res	-0.03	-0.08	-0.08
Gearity	TN (United)	All	-0.24	-0.24	-0.24
Gearity	VA (United)	All	-0.22	-0.22	-0.22
Perl	National-1980	Res	NA	NA	-0.09
Perl	National-1970	Res	NA	NA	-0.01
Reinking	UT (Bell)	All	-0.04	-0.04	-0.04
Miller	MI (Bell)	All	-0.08	-0.08	-0.08
Alleman	National	Res	NA	NA	-0.17
Alleman	National	Res	NA	NA	-0.02
Feldman	National	Res	NA	NA	-0.05
Davis et al	Bell System	All	NA	-0.02	-0.08
Mehan	NC (United)	Res	NA	NA	0.00
Heidt	NE Tel (Bell)	Res	-0.04	NA	-0.20

- There is no evidence that federal decisions will cause residential subscribers to discontinue service and thus threaten universal service

The staff recommended that the FCC should continue to monitor the effects of federal decisions on local rates and the number of subscribers.

CONGRESSIONAL BUDGET OFFICE STUDY

In January 1984, the Congressional Budget Office of the Congress of the United States issued a report entitled "Local Telephone Rates: Issues and Alternatives". This working paper compared the approach of the FCC in its access charge proceedings with two major legislative proposals which are pending before the Congress: H.R. 4102 and S. 1660. H.R. 4102 would permanently prohibit the imposition of access charges on residential and small business customers. It would continue a large measure of the toll support traditionally provided for local rates. By contrast, S. 1660 provides a moratorium on access charges imposed on residential and small business customers until January 1, 1986. The Senate bill would provide time for additional analysis and consideration prior to a decision.

Both bills contain provisions for "lifeline service" to needy subscribers. Similarly, each of the bills would provide assistance to companies with high fixed costs in order to protect subscribers of such companies against undue rate increases. These bills are similar to the action taken by the FCC in establishing a Universal Service Fund to provide assistance to companies which have high costs.

In carrying out its analysis, Congressional Budget Office (CBO) staff noted that in 1982, approximately 26% of subscriber plant costs (about $10 billion annually) was allocated to interstate service and recovered from interstate toll calls. Exhibit 21, overleaf, contains CBO estimates which were provided in Table 1 of the working paper. Exhibit 22, overleaf, contains data on telephone industry operating revenues for 1982 which were contained in Table 2 of the working paper.

The allocation of subscriber plant costs to interstate service is highly variable from one state to another. The study notes that some small telephone companies are currently able to allocate as much as 85% of their subscriber plant costs to interstate service. The existence of high subscriber plant costs combined with the assignment of a large proportion of those costs to interstate service means an unusually large amount of toll support. For example, because a large proportion of Nevada calls are interstate, 62% of subscriber plant costs are assigned to the interstate jurisdiction and recovered from the nationwide toll

EXHIBIT 21

TELEPHONE INDUSTRY SUBSCRIBER PLANT COSTS FOR 1982
($ Billions)

	Subscriber Plant Costs	Amount Allocated to Interstate Toll Service
Customer Premises Equipment	$ 7.0	$ 1.8
Inside Wiring	8.0	2.0
Subscriber Loop (Including Central Office Connection)	24.0	6.0
Total	$ 38.9	9.8

EXHIBIT 22

TELEPHONE INDUSTRY OPERATING REVENUES FOR 1982
$ (Billions)

Source	Bell System	Independents	Total
Local Service	$ 29.6	$ 5.2	$ 34.9
Toll Service	33.9	8.4	42.3
Other	2.2	0.4	2.5
Total	$ 65.7	$ 14.0	$ 79.7

pool. Nevada Bell also has unusually high costs (subscriber plant costs of $42 per customer per month). Thus, Nevada Bell receives $26 per month per customer from the interstate toll pool ($42 times 62%).

In Exhibit 23, overleaf, we provide statistics from the study which relate to the states whose local rates were examined earlier. We note first of all that Florida has the highest plant costs per subscriber at $35 per month. The remainder are all in the $26-30 per subscriber per month range, except for Mountain Bell in Texas, which is the lowest at $21 per subscriber per month. In terms of the amount allocated to interstate through the separations formula, Florida and Vermont recover the highest amount from interstate settlements, followed closely by Montana. All the others are in the range of $6-9 per subscriber per month allocation to interstate.

Unfortunately, this additional information is not really of assistance in explaining the differences in increases in local rates. Those states in which competition seemed to be strongest had the lowest amount allocated to interstate, although Florida was a significant exception, having one of the highest amounts allocated to interstate. We do note a tendency towards higher increases when the amount allocated to interstate is lower, but there is not a clear-cut pattern.

CONCLUSIONS

This review of local rate changes across a number of states indicates a general tendency for local rates to increase more rapidly where competition tends to be stronger. However, there are a number of other factors which affect this situation, ranging from the objectives of state regulatory bodies which have jurisdiction over local rates, to the impact of the jurisdictional separations formula, by which some local operating companies are able to allocate a significant portion of local costs to interstate.

The gradual implementation of access charges will put pressure on the local operating companies to keep their costs as low as possible. While the Universal Service Fund will provide assistance to companies that have high costs, the matter of toll contribution to offset local costs will be much more obvious when access charges are in place.

The Michigan petition is indicative of the concern at the state level regarding federal preemption of much of the states' jurisdiction. The independent telephone companies, particularly the smaller independents and cooperatives, are also concerned that the loss of toll contribution will have a severe impact on their viability in spite of the Universal Service Fund.

EXHIBIT 23

BELL SYSTEM SUBSCRIBER PLANT COSTS IN DOLLARS PER MONTH AND INTERSTATE ALLOCATION OF SUBSCRIBER PLANT COSTS

Local Bell Company	Subscriber Plant Costs in Dollars	Percent Allocated to Interstate (SPF)	Amount Allocated to Interstate in Dollars
California	27	24.0	6
Florida	35	36.2	13
Montana	27	44.5	12
New York	27	27.4	7
Oklahoma	26	31.8	8
Oregon	27	32.8	9
Texas (Mountain)	21	33.0	7
Texas (Southwestern)	30	22.6	7
Vermont	29	43.9	13

FINDINGS AND CONCLUSIONS

The purpose of this study was to gather information and report on specific aspects of the experience of the U.S. with competition in long distance telephone service. Findings and conclusions were not required. However, as some of the information gathered and impressions gained during the study were of an overall nature, we present these comments in this final chapter.

OVERALL IMPRESSIONS

The extent of competition is increasing at all levels - interstate, intrastate inter-LATA and intrastate intra-LATA. As the major competitors grow in size, they are subjected to competitive forces which require them to serve a broader market. As a result, they tend to lose some of the cost advantages they once had, and even end up reselling AT&T's service to provide universal termination for their customers. This trend will continue into the intrastate and intra-LATA levels.

In spite of continued growth of competition, the interstate market share held by AT&T is still at the 92-94% level. As many of the competitors are reselling AT&T's services, in part, and because they are expanding the market overall, AT&T is expected to experience continued growth in toll revenues. Margins will tend to decline in response to a continuing shift of traffic towards WATS which will be resold by resellers. AT&T is concerned that it be allowed to compete on equal terms, and it will continue to direct its efforts towards deregulation.

At the opposite end of the scale, the hundreds of resellers of telecommunications services are expected to continue to apply their entrepreneurial skills to specialized segments of the market. Financial instability will likely lead to rapid turnover among the newer and smaller entrants. However, the capital investment required to enter this market is very small, which tends to attract the small but ambitious retailer.

ACCESS CHARGES

The Congress and the FCC are heavily embroiled in the access charge issue, with the FCC placing the emphasis on the appropriate allocation of costs, and the Congress concerned about the impact on subscribers.

AT&T is expected to keep on the pressure to minimize the differential between the access charge it will pay, and the discounted access charges which its competitors will pay. This is an interim arrangement until the Other Common Carriers are granted equal access. However, the rate at which the charges are phased in could be significant, particularly for some of the smaller competitors.

LOCAL RATES

With the implementation of access charges, the contribution to local costs will be apparent. This will have a beneficial impact on the consumer as local exchange companies will be under pressure to control costs. Comparisons of one company with another will tend to highlight inefficiencies. However, where high costs are unavoidable, the Universal Service Fund will protect the interests of local subscribers.

The subject of "local bypass" is also of concern to regulators. As long as access charges are maintained at a reasonable level, it should not be a problem. However, increases in access charges will cause the major competitors (MCI and Sprint) to establish multiple points of entry within the LATAs. This would cause a significant drop in revenues, with little or no decrease in costs in the short term. This could have a significant impact on local rates.

There is widespread concern among the independent telephone companies, particularly the smaller independents and cooperatives, that the loss of toll contribution will have a severe impact on their viability in spite of the Universal Service Fund. The gradual loss of control at the state level due to the federal preemption of state jurisdiction on a number of matters is a concern to state regulators, small independents and consumer groups. Generally speaking, they are all resisting any further changes to the current regulatory and competitive environment.

APPENDIX A

ABBREVIATIONS AND DOCKET NAMES

ABBREVIATIONS

AT&T	American Telephone and Telegraph Company
BOC	Bell Operating Company
BSOC	Bell System Operating Company
CCSA	Common Control Switching Arrangements
CPE	Customer Premises Equipment
ENFIA	Enchange Network Facilities for Interstate Access
FX	Foreign Exchange Line
LATA	Local Access and Transport Area
MFJ	Modification of Final Judgment
MTS	Message Telecommunications Service
NTS	Non-Traffic Sensitive
OCC	Other Common Carrier
ONAL	Off-Network Access Line
PSN	Public Switched Network
SLU	Subscriber Line Use
SPF	Subscriber Plant Factor
USOA	Uniform System Of Accounts
WATS	Wide Area Telecommunications Service

COMMONLY USED DOCKET NAMES

NAME	FCC DOCKET NUMBER
ABOVE 890	11866
APPLICATION OF ENFIA	CC 82-619
AT&T COST ALLOCATION MANUAL	CC 79-245
AT&T PRIVATE LINE	CC 79-246
AT&T RATE STRUCTURE	16258 & 19129
AT&T WATS TARIFF	CC 80-765
CARTERFONE	16942 & 17073
COMPETITIVE CARRIER	CC 79-252
COMPUTER I	16979
COMPUTER II	20828
COMPUTER II IMPLEMENTATION	CC 81-893
COST ALLOCATION MANUAL	CC 79-245
DOMESTIC TELEGRAPH INVESTIGATION	14650
DOMSAT	16495
EFFECT OF COMPETITION	20003
ENFIA	CC 78-371
EXECUNET	20640
FACILITIES TO OCC's	20099
HUSH-A-PHONE	9189
IMPACT ON LOCAL RATES	CC 83-788
INTERCONNECTION (REGISTRATION)	19528
JOINT BOARD	CC 80-286
LIKE SERVICES	21402
LOCAL DISTRIBUTION	19896

MTS/WATS MARKET STRUCTURE	CC 78-72
OMNIBUS HEARING(IMPACT ON LOCAL RATES)	CC 83-788
PRIVATE LINE DISCOUNT PRACTICES	CC 79-246
RESALE AND SHARED USE - WATS	CC 80-54
RESALE OF PRIVATE LINE	CC 82-44
SHARING AND RESALE	20097
SPECIALIZED COMMON CARRIER	18920
STATION CONNECTIONS	CC 79-105
STRUCTURAL SEPARATION	CC 83-115
SYSTEM INTERCONNECTION	19896
TELPAK	14251 AND 18128
TRANSPONDER SALES	CC 82-45
USOA	CC 78-196

APPENDIX B

SUMMARIES OF FCC DOCKETS REFERRED TO IN TEXT (WITH CITATIONS)

NOTE: No citations have been provided in the text other than Docket Numbers. Citations for FCC Dockets are contained in this appendix.

FCC DOCKET 9189 (HUSH-A-PHONE)

This Docket was the result of AT&T informing its subscribers that their use of a passive device called the Hush-A-Phone was in violation of its tariff. The Hush-A-Phone was a device which clipped onto the handset to direct an individual's voice into the handset. It reportedly improved the quality of communications in noisy locations.

In response to AT&T's action, Hush-A-Phone complained to the FCC in 1948. An FCC Decision dated December 21, 1955, found that the use of the device could cause some impairment in the quality of transmission, and that unrestricted use could result in a general deterioration of the quality of interstate and foreign communications services. It was therefore held to be in violation of the tariff.

Hush-A-Phone appealed the Decision, and on November 8, 1956, the US Court of Appeals set aside the FCC decision. The court found that the tariff was an unwarranted interference with the right of a subscriber to use the telephone in ways which are privately beneficial. The case was remanded to the FCC for further proceedings.

Upon review, the FCC issued a further decision (22 FCC 112, adopted February 6, 1957) in which it found AT&T's tariff to be unjust and unreasonable and therefore unlawful. AT&T was ordered to remove the restrictions from its tariff.

FCC DOCKET 11866 (ABOVE 890)

The FCC had before it a number of applications for private microwave systems. Accordingly, in Docket 11866, it undertook to review the frequency allocations for microwave and to reconsider private microwave. A preliminary notice of hearing was released on November 9, 1956. The notice stated that these allocations had not been examined for 12 years, and raised 19 issues for consideration.

Over 200 persons and organizations participated in the proceeding. In its Decision (27 FCC 359, adopted July 29, 1959) the commission questioned whether it was required, as a matter of law or policy, to protect the users of common carrier services from any adverse economic effects that such carriers might suffer from the operation of private point-to-point systems. The FCC found no basis for concluding that substantial adverse impacts would result. It found the record inconclusive on any detriment which the licensing of private systems would have on the ability of common carriers to serve the general public.

The Commission did find that the record did support determination that there is a need for private point-to-point systems. It noted that only limited use was being made of microwave frequencies, and expressed its new view that provision for expanded eligibilty would provide for more effective frequency utilization.

Accordingly, the FCC approved the licensing of private point-to-point microwave in principle. Specific allocations were made in separate rulemaking proceedings.

FCC DOCKET 14251 (TELPAK)

This Memorandum Opinion and Order, adopted by the Commission on December 23, 1964 (37 FCC 1111), in the matter of AT&T Tariff FCC No. 250, Telpak Service and Channels, found that services furnished under the Telpak tariff and those furnished under the various other private line tariffs are communications services.

No material cost differences were found in the furnishing of a number of channels to one customer under Telpak as opposed to furnishing the same number of channels to several customers under the private line tariffs.

The Commission found no competitive necessity to justify the discrimination between Telpak A and B, and for other private line tariffs. AT&T was ordered to file tariff schedules which would eliminate the unlawful discrimination found to exist between Telpak A and B, and other private line services, with cost justification.

With respect to Telpak C and D, however, the Commission found there was competitive necessity which justifies the discrimination in charges. However, it found the charges were not shown to be compensatory. AT&T was ordered to submit cost data on which such a determination could be made.

This docket was later combined with Docket 16258 (7 FCC 2d 30), forming part of the general inquiry into private line costing and rates.

FCC DOCKET 14650 (DOMESTIC TELEGRAPH INVESTIGATION)

In 1962, a decline in domestic telegraph service by Western Union caused the FCC to institute the Domestic Telegraph Investigation in 1962. It charged the Telephone and Telegraph Committees with the responsibility of examining the problems involved and developing alternative solutions.

One of several factors considered was the relationship between Western Union and Bell System in domestic Communications. Bell's pricing practices affected Western Union through the rates set for, among other things, private line, particularly through Telpak. AT&T also imposed interconnection restrictions which seemed to limit the latter's capacity to compete in the private line voice field.

Western Union alleged that the Bell System historically employed its monopoly voice services to subsidize its private line services.

This Docket included a 1964 7-Way Cost Study, where the earnings of the monopoly voice service, based upon fully allocated investment, were substantially higher than those in the competitive private line fields. Bell asserted that a fully allocated investment and cost basis was inappropriate for ratemaking purposes in this situation.

The Report of the Telephone and Telegraph Committee recommended, among other things, that full cost pricing be used as the basis for minimum prices in the competitive private line fields. The ultimate determination was left to Docket 16258.

FCC DOCKET 16258 (AT&T RATES)

This Docket which began in 1965 (2 FCC 2d 871) was a general inquiry into the lawfulness of AT&T's interstate rates. By order of the Commission of November 9, 1966, the issue of the justness and reasonableness of Telpak C and D rates was added to the issues in Docket 16258.

The first phase dealt with rate of return and rate base items. In its Interim Decision and Order on Phase I (9 FCC 2d 30) adopted July 5, 1967, the Commission ordered a $120 million annual reduction in AT&T's interstate revenues.

The phase (1-B) dealing with ratemaking principles led to a series of off-the-record conferences of interested parties which resulted in a statement of ratemaking principles. The Telephone Committee of the FCC recommended adoption of the statement, with one minor exception. In a Memorandum Opinion and Order adopted July 29, 1969 (18FCC 2d 761) the Commission adopted the Report of the Telephone Committee.

In an Order adopted December 21, 1971 (32 FCC 2d 701), the record of Phase 1-B of this proceeding was incorporated into Docket 18128.

FCC DOCKET 16495 (DOMSAT)

In 1966, in response to two studies on domestic satellites conducted by the executive branch, the FCC instituted an investigative proceeding to explore various legal, technical and policy questions associated with the use of satellite facilities for domestic communications.

The First Report and Order, adopted March 20, 1970 (22 FCC 2d 86) (also known as Domsat I) established the Commissions's authority to authorize any non-federal government entity to construct communications satellite facilities for domestic use. It also set up procedures for filing applications.

The Second Report and Order, adopted June 16, 1972 (35 FCC 2d 844) (also known as Domsat II) concluded that the public interest would be best served by multiple entry, subject to certain conditions. This would be most likely to produce a fruitful demonstration of the extent to which satellite technology may be used to provide existing and new specialized services more economically and efficiently than can be done by terrestrial facilities. The Commission determined that competitive sources of supply for specialized services would encourage technical innovation and minimize rates.

Conditions were imposed upon AT&T because it was believed that AT&T's existing economic strength and dominance might deter entry by others. AT&T had the ability to load a high capacity satellite system with MTS and WATS traffic, thereby controlling the cost of service and its potential of subsidization of specialized services by monopoly services. The FCC therefore prohibited AT&T from using its satellite facilities for commercial private line services for three years.

Upon reconsideration, the FCC issued a Memorandum Opinion and Order (38 FCC 2d 665), adopted December 21, 1972 (Domsat III). The FCC emphasized that it did not intend to extend the prohibition except in the case of convincing evidence that the three year moratorium did not provide a reasonable opportunity for competitive entry. The Order provided for the expiration of the restriction three years after Comstar's initial operation.

On April 4, 1975, GTE Satellite Corporation and AT&T were authorized to jointly operate the Comstar system. GSAT agreed to be bound by the conditions earlier imposed upon AT&T.

In a further Memorandum Opinion and Order adopted July 19, 1979 (79 FCC 2d 895), petitions to extend the three-year moratorium on the use of Comstar for the provision of non-government private line services were denied.

FCC DOCKETS 16942 AND 17073 (CARTERFONE)

The Carterphone was a device which transmitted signals from a mobile radio transmitter into the telephone handset and vice-versa. There was no direct electrical connection between the Carterfone device and the telephone (it was like an acoustic coupler). AT&T claimed it violated AT&T tariffs because it provided a connection between telephone lines and other channels of communication.

In 1960, the FCC informed Carter that the Carterfone did not violate FCC rules, but it was in violation of the AT&T tariffs. AT&T threatened to suspend telephone service to Carterfone users. Carter filed an anti-trust suit against AT&T.

The court referred the matter to the FCC, and the FCC, in an Order adopted October 20, 1966 (5 FCC 2d 360) ordered a public hearing into the matter (Docket 16492).

Shortly thereafter, Carter filed a complaint with the FCC which was assigned Docket number 17073, but this complaint docket was consolidated with Docket 16492.

In its decision adopted June 26, 1968 (13 FCC 2d 420) the Commission held that the tariff was unreasonable in that it prohibited the use of interconnecting devices which do not adversely affect the telephone system. The Hush-A-Phone case was referred to as a precedent for passive devices. AT&T was ordered to revise its tariff.

FCC DOCKET 16979 (COMPUTER I)

In response to the apparent coming together of computer and communications technologies, the FCC initated Docket 16979 in 1966. In its Notice of Inquiry adopted November 9, 1966 (7 FCC 2d 11), the Commission invited submissions from all interested parties.

The response to this invitation was somewhat overwhelming. Over 200 interested parties made submissions. These submissions came from all aspects of the computer and communications industries, including users, service industries and manufacturers. As a result, the FCC contracted with Stanford Research Institute (SRI) to prepare a study of the submissions and make recommendations.

In a Report and Further Notice of Inquiry adopted May 1, 1969 (17 FCC 2d 587) (First Report), the Commission reported on the SRI studies and noted its recommendation that lifting the ban on interconnection of customer-owned equipment and systems will expand greatly the competitive opportunity for the manufacture and sale of peripheral and special communications equipment. It invited responses to the SRI study which was published as a series of seven reports.

On April 3, 1970, the Commission issued a Tentative Decision (28 FCC 2d 291) which proposed that interconnection matters be handled through rate, tariff and licensing proceedings. On the questions of regulation of data processing and conditions under which common carriers should be permitted to engage in data processing, the Commission first proposed operational definitions for a number of terms, essentially trying to differentiate communications and data processing.

On the question of regulation of data processing, the FCC found that so long as the data processing industry continued to retain its then competitive structure, such services should not be subject to common carrier regulation.

With respect to the offering of data processing services by common carriers, the Commission sought to assure "(a) that such services will not adversely affect the provision of efficient and economic common carrier services; (b) that the costs related to the furnishing of such services will not be passed on, directly or indirectly, to the users of common carrier services; (c) that revenues derived from common carrier services will not be used to subsidize any data processing services; and (d) that the furnishing of such services will not inhibit free and fair competition between communication common carriers and data processing companies or otherwise involve practices contrary to the policies and prohibitions of the anti-trust laws." (28 FCC 2d at 302).

The Commission expressed its belief that these objectives will be achieved best "by a maximum separation of activities which are subject to regulation from nonregulated activities involving data processing". Accordingly, it adopted a policy that "communications common carriers shall furnish data processing services only through separate corporate entities".

In its Final Decision and Order adopted March 10, 1971 (28 FCC 2d 267), the Tentative Decision was modified in three respects, namely: Carriers were precluded from disposing of any capacity on computer systems utilized by that carrier for the provision of common carrier communications services; carriers were prohibited from obtaining any data processing services from their data affiliates; and carrier-owned data affiliates were required to use different corporate names and symbols from those of their carrier affiliates and were prohibited from promoting their products or services through or by association with their carrier affiliates.

In an order adopted March 29, 1973 (40 FCC 2d 293), the FCC noted that, with minor exceptions, the U.S. Court of Appeals had affirmed its Final Decision and Rules.

FCC DOCKET 18128 (TELPAK)

The history of the Telpak matter was addressed in a Memorandum Opinion and Order adopted October 29, 1969 (20 FCC 2d 383). By this time, Docket 16258 had been incorporated into Docket 18128. The Commission noted that the original Telpak rates had been filed in 1961 in response to the "Above 890" Decision, that Telpak A and B were cancelled due to its finding of a lack of competitive necessity, and that the question of whether Telpak C and D were compensatory had been incorporated into Docket 16258, and subsequently into this Docket 18128. The question is still unresolved.

Increased rates for Telpak had been filed in 1968. They had been suspended for the maximum 90 days (13 FCC 2d 853) and proceedings had been deferred until phase 1-B of Docket 16258 had been resolved. Agreement was reached in phase 1-B, and the Order adopted October 29, 1969 authorized hearings to be scheduled. It also suspended the implementation of the tariff for the maximum 90 days and imposed an accounting order so that refunds could be made in the event the rates were found unlawful.

The question of whether the rates were compensatory remained unresolved, and AT&T continued to file tariffs for Telpak. On February 3, 1972, the FCC adopted a Memorandum Opinion and Order (33 FCC 2d 522) requiring AT&T to obtain special permission before making any further changes to its Telpak tariff prior to a final decision in this case.

Following a hearing, the FCC adopted a Memorandum Opinion and Order on September 23, 1976 (61 FCC 2d 587). The FCC rejected long run incremental costing and marginal costing methodologies and adopted fully distributed costing. It stated that "Method 7 costs [an historic causation approach] will form the primary basis for justification of all tariff filings, in conjunction with Method 1 data which will provide us with a comparative benchmark of relative use." AT&T was ordered to file revised rate levels for all major categories of interstate services on this basis.

In an order adopted on January 14, 1981 (84 FCC 2d 156) the FCC noted that the proceedings could continue for some time, and rescinded the accounting orders only to the extent that AT&T is required to make periodic filings. It is, however, still required to maintain the records pending the eventual disposition of the case.

FCC DOCKET 18920 (SPECIALIZED COMMON CARRIER)

In response to applications from Microwave Communications of America Inc. and Datran, the Commission adopted a Notice of Proposed Rulemaking on July 15, 1970 (24 FCC 2d 318).

On May 25, 1971, in its First Report and Order (29 FCC 2d 870), the FCC found that:

- There is a public need and demand for the proposed facilities and services.
- Competition is feasible.
- Beneficial effects are likely.
- No adverse impact on service to the public will result.
- The entry of new carriers in the specialized communications field would serve the public interest, convenience and necessity.

In its Second Report and Order adopted June 25, 1974 (47 FCC 2d 737), the Commission adopted policies and rules dealing with local distribution facilities and frequencies. The matter of the requirements for policing of quality and reliability standards was left for a third phase.

In its Final Report and Order (78 FCC 2d 1291) adopted June 25, 1980, the Commission found that adequate safeguards with respect to quality of service were contained in the tariffs filed with the Commission, and further regulation was not required. The docket was accordingly terminated.

FCC DOCKET 19129 (AT&T RATES)

The first phase of this proceeding, initiated in 1971, was a limited investigation of rate of return for AT&T. At the close of Phase I the parties were asked to address a number of issues including the lawfulness of MTS rates. The issues for investigation were as follows:

- Revenue requirements for interstate and foreign services.
- Rate structure for MTS.
- Integrated structure of the Bell system with special reference to Western Electric.

In its Phase II Final Decision and Order (64 FCC 2d 1) adopted February 23, 1977, the Commission found that the Bell Operating Companies' equipment purchases were not optimal, and required Bell to respond within 90 days.

With respect to rates, it found that overall rate levels had been just and reasonable since 1971. However, it was the internal structure of the rates that was of concern. AT&T was ordered to submit cost and revenue information by rate step, and also to file a schedule of cost-based rates using criteria established in Docket 18128 (FDC Method 7).

FCC DOCKET 19528 (INTERCONNECTION)

In its First Report and Order (56 FCC 2d 593) adopted in 1975, the Commission adopted a telephone equipment registration program intended to allow for direct electrical connection of telephone terminal equipment to the telephone network while protecting the network from harm.

In its Second Report and Order (58 FCC 2d 736) adopted in 1976, the FCC extended the registration program to encompass Private Branch Exchange (PBX) and key telephone systems, although it was not finally resolved until 1978 in the Third Report and Order(67 FCC 2d 1255).

In a final Memorandum Opinion and Order in this Docket (70 FCC 2d 1800) adopted January 25, 1979, the FCC attempted to resolve all outstanding issues and liberate terminal interconnection to the maximum extent possible consistent with protecting the network.

FCC DOCKET 19896 (SYSTEM INTERCONNECTION)

MCI initiated this proceeding by inquiring of the FCC whether or not it was entitled to various types of interconnection with the telephone companies. The FCC replied in the affirmative, and Bell applied for review. Related, but not separate, issues in this docket were the provision of facilities to Western Union and interconnection with domestic satellite carriers.

One significant aspect of this case was that, while many of these local distribution services had been provided under contract, Bell was now proposing to provide them under tariffs filed by the operating companies with the various state commissions. Interconnection with Foreign Exchange (FX) and Common Control Switching Arrangements (CCSA) services of MCI were also mentioned.

Upon reviewing the record of Bell responses to "show cause" orders of the Commission, the Commission found as follows:

> "We find and conclude Bell engaged in conduct which has resulted in the denial of, or unreasonable delay in establishing, physical connections with MCI and other specialized common carriers which are parties to this proceeding; that it pursued policies and practices which foreclosed the establishment of through routes, and the charges, facilities and regulations applicable thereto in connection with authorized interstate services of MCI and other specialized carriers; that Bell is unlawfully applying and proposes to continue to apply the tariff schedules of charges and regulations filed with state regulatory commissions for services and facilities provided to MCI and other specialized common carriers and used by the specialized carriers in the transmission of interstate and foreign communications; and that Bell has discriminated against MCI and other specialized carriers in favor of its own Long Lines Department by denying to MCI and other specialized carriers the interconnection privileges presently provided to the said Long Lines Department in connection with authorized interstate services".

The FCC ordered AT&T and the Bell System Companies to interconnect with the specialized common carriers for all their interstate and foreign services, including interconnection for the purpose of furnishing FX service and for insertion into telephone company CCSA. The rates were to be subsequent to tariffs filed with the FCC. The facilities were to be similar to those provided to AT&T's Long Lines Department and furnished on a non-discriminatory basis.

FCC DOCKET 20003 (EFFECT OF COMPETITION)

This proceeding was instituted as a broad fact-finding investigation into the economic effects and interactions of several telecommunications industry and regulatory policies and practices, in particular competition in private line and terminal equipment, cost separation and rate structure for local rates. At the heart of this proceeding was the impact on local telephone rates.

In its First Report (61 FCC 2d 766) adopted September 23, 1976, the Commission expressed disappointment with the overall depth and quality of the comments and studies submitted. However, the Commission's own review of rates and earnings indicated little, if any, adverse impact on revenues or local rates. In spite of telephone company assertions that "contribution loss" was or would be a result, the FCC found "no evidence to support the industry's claims that these services currently provide any contribution or excess of revenues over costs, which helps maintain low rates for basic telephone service." The Commission found merit in study findings before the New York, Massachusetts and Vermont Commissions which indicated the opposite may be true.

Following the issue of the First Report, numerous pleadings were filed and a series of state regulatory studies was submitted for consideration. On January 9. 1980, the Commission adopted its Second Report (75 FCC 2d 506) to update its initial conclusions in light of the subsequent filings.

In regard to interconnection competition, the FCC found the submissions confirmed its own analysis that business vertical services were being subsidized in some states, presumably by users of basis exchange service. In regard to private line service competition, the Commission found very little evidence that OCC competition caused any potential adverse impact upon the established carriers. The proceeding was therefore terminated.

FCC DOCKET 20097 (SHARING AND RESALE)

In a Notice of Inquiry and Proposed Rulemaking issued in 1974 (47 FCC 2d 644), the Commission invited comments on:

> "...Whether and under what conditions, subscribers of the various offerings of communications common carriers should be allowed to resell such services to others or to participate with others in the sharing or joint use of such services, and if so, whether and to what extent the Commission should regulate any such resale or shared use."

To that time the tariffs of AT&T had contained provisions restricting or prohibiting resale and sharing of communications facilities.

In a Memorandum Opinion and Order adopted in 1976 (60 FCC 261), the unlimited resale and sharing of Telpak and private line services was found to be just and reasonable. The public benefits to be realized would include:

> "(a) The provision of communication service at rates more closely related to costs;
>
> (b) Better management of communications networks, and the provision of management expertise by users and intermediaries to the carriers;
>
> (c) The avoidance of waste of communications capacity; and,
>
> (d) The creation of additional incentives for research and development of ancillary devices to be used with transmission lines."

However, the FCC found the record did not support any change in the restrictions on WATS and MTS.

With respect to the regulation of resale carriers, the Commission found that entities engaged in the resale of communications services were common carriers and were fully subject to the provisions of the Act. Entities engaged in sharing were not found to be subject to the Act.

The only difference between regulation of resale carriers and regulation of conventional common carriers was an open entry policy for resellers. That is, a special showing of public need was not required as a condition of certification.

In a further Memorandum Opinion and Order adopted January 5, 1977 (62 FCC 2d 588), the FCC confirmed its earlier decision with respect to sharing and resale.

AT&T requested the FCC to stay the order in view of the fact that Docket 18128 held the Telpak tariff to be unlawful. In a Memorandum Decision and Order adopted June 8, 1977 (65 FCC 2D 122), the request for stay was denied.

FCC DOCKET 20099 (FACILITIES TO OCC'S)

On November 12, 1973, the Bell Operating Companies filed tariffs offering two types of access facilities to DOMSAT carriers. The FCC then instituted this proceeding to look into all BSOC tariffs offering facilities for use by other common carriers.

Five months of negotiations ensued, following which agreement in the form of a Joint Motion was reached. This agreement was found by the Commission to remove many tariff restrictions which had heretofore been in place, and also to provide for technical cooperation between Bell and the Other Common Carriers. Accordingly, in Memorandum Opinion and Order adopted April 23, 1975 (52 FCC 2d 727), the Joint Motion was granted.

FCC DOCKET 20640 (EXECUNET)

In a Decision adopted June 30, 1976 (60FCC 2d 25), the Commission ordered MCI to cease offering the Execunet service because the service had the essential characteristics of MTS and was beyond the scope of MCI's authorized specialized common carrier offerings. This order was in keeping with the Commission's Specialized Common Carrier Decision which authorized specialized carriers to compete only in the provision of private line services and which did not authorize carriers other than telephone companies to provide MTS and WATS.

Upon appeal of the Execunet decision, the U. S. Court of Appeals in the District of Columbia reversed and remanded the Commission's decision. In its decision, the Court ruled that because the Commission had never made an affirmative determination that the public interest required a monopoly supplier in interstate toll service, a competitor's service could not be excluded from the marketplace. The Supreme Court refused to review the Appeals Court ruling.

Based on the Appeals Court Decision, AT&T saw no legal obligation to provide interconnection for Execunet. In a February 23, 1978 declaratory ruling, the FCC agreed with AT&T's position. On April 14, 1978, the Appeals Court ordered interconnection for MCI with AT&T. On appeal to the Supreme Court, petitions for stay and review were denied.

FCC DOCKET 20828 (COMPUTER II)

This proceeding focussed on regulatory issues emanating from the greater utilization of computer processing technology and its varied market applications.

The issues in this proceeding were as follows:

- Should enhanced services which are provided over common carrier telecommunications facilities be regulated and to what extent?
- Is the continuation of traditional regulation of customer premises equipment (CPE) in the public interest?
- What is the role of common carriers in the provision of enhanced services and CPE?

In its Final Decision adopted April 7,1980 (77 FCC 2d 384), the Commission found that basic service is limited to the common carrier offering of transmission capacity, whereas enhanced service combines basic service with computer processing applications that act on the format, content, code, protocol, etc., or provide the subscriber additional, different, or restructured information, or involve subscriber interaction with stored information.

The Commission found that common carrier offerings of basic transmission services are communications services and regulated as such under the Act. It also found that regulation of enhanced services is not required.

With respect to CPE, the Commission determined that the provision of CPE was not communications common carriage. It determined that CPE offered by communications common carriers should be unbundled from charges for transmission service and that CPE should be provided on a non-tariffed basis. It also provided for a transition period lasting until March 1, 1982, during which the FCC, Joint Board, state commissions and carriers would complete transitional activities.

Consistent with Computer I and the "maximum separation" policy, the Commission found that the separation principle should be applied to CPE and enhanced services, but only in those cases where the telephone companies have sufficient market power to engage in effective anti-competitive activity on a national scale. Captive transmission capacity for enhanced services, however, must be purchased at tariffed rates.

In a further Memorandum Opinion and Order adopted October 28, 1980 (84 FCC 2d 50) the Commission modified its implementation plan in response to a number of petitions. It decided to distinguish new CPE and federally tariffed CPE from that CPE which is tariffed at the state level and subject to the separations process (embedded CPE). This approach was termed a "bifurcated approach". An implementation proceeding for embedded CPE was announced.

The Commission also announced that on reconsideration it had decided that carriers affiliated with GTE would not be subject to the structural separation requirement for CPE and enhanced services, leaving AT&T alone in that requirement.

On October 7, 1981, the FCC adopted a Memorandum Opinion and Order on Further Reconsideration (88 FCC 2d 512). AT&T had argued for a "flash-cut" rather than a "bifurcated" approach for the treatment of embedded CPE. The Commission concluded that the bifurcated approach was best.

A subsequent appeal to the courts by the state commissions sought a ruling that the states have authority to regulate CPE used jointly in interstate and intrastate commerce. The Court agreed with the FCC that enhanced services and CPE are not common carrier services. It further found that preemption of state regulation is justified because the objectives of Computer II would be frustated by state tariffing of CPE.

FCC DOCKET 21402 (LIKE SERVICES)

In a Final Decision and Order adopted November 21, 1978 (70 FCC 2d 593) the FCC found WATS and MTS to be "like communications services" within the meaning of the Communications Act because they are functionally equivalent. AT&T was ordered to either eliminate or justify its discrimination in pricing these services at different levels.

In a further Memorandum Opinion and Order adopted July 1, 1980 (79 FCC 2d 10) the Commission noted that ten groups of users sought reconsideration of the earlier decision. The petitions were denied, but the Commission emphasized that it was not trying to encourage the elimination of WATS - it was merely requiring AT&T to prove the reasonableness of any discrimination.

This decision was appealed and the Court vacated and remanded the decision with directions to undertake "such further proceedings, consistent with this opinion, as the Commission may wish to pursue".

FCC DOCKET CC 78-72 (MTS/WATS MARKET STRUCTURE)

Following the Court's decision in Execunet (detailed earlier in Docket 20640) the FCC issued a Notice of Proposed Inquiry and Rulemaking in 1978 (67 FCC 2d 757). The purpose of the inquiry was to determine whether the public interest requires that interstate message toll and/or WATS or their functional equivalents should be provided on a sole-source basis. Should any public interest be found to exist, the inquiry was to explicitly define the characteristics, boundaries and scope of any such sole-source services, and establish which entities should be authorized to provide them.

In addition to examining the effect of market structure on rates, technical and operational efficiency, network planning, and innovation, it was also to examine the possible effects of competition on the interstate MTS rate structure and local exchange service rates, and to determine appropriate access arrangements for all carriers who utilize local exchange facilities to provide interstate services.

In a Supplemental Notice adopted August 14, 1979 (73 FCC 2d 222). the Commission provided more detail on the structure of the inquiry and provided guidelines to interested parties for the format of submissions on "industry models".

A Second Supplemental Notice was adopted in April 1980 (77 FCC 2d 224). By this time, the initial ENFIA agreement (see Docket CC 78-371) was in place. Initial comments on the industry model were reported to advocate open entry or be neutral on this question, with the single exception of Alascom Inc.

This Second Supplemental Notice detailed an access charge plan based on four tentative access service categories:

- MTS/WATS
- FX and CCSA Access
- Private Line
- OCC-ENFIA

The Commission also announced it would issue a separate notice to revise the FCC-NARUC Separations Manual (See Docket CC 80-286).

On August 1, 1980 the FCC adopted a Report and Third Supplemental Notice (81 FCC 2d 177) in which it declared MTS-WATS competition to be in the public interest.

In a Fourth Supplemental Notice of Inquiry and Proposed Rulemaking adopted May 27, 1982 (90 FCC 2d 135), the FCC referred to its tentative access charge plan in the Second Supplemental

Notice and stated that, in view of the proposed settlement of the AT&T anti-trust suit, several issues required further discussion before an interim access charge plan could be adopted. These issues included the assignment of NTS (non-traffic sensitive) costs, incentives to bypass the PSN (public switched network) and differences in interconnection quality.

In its Second Report and Order (92 FCC 2d 787 (1983)) the Commission affirmed its tentative conclusion that an open entry policy in the Alaskan interstate market is in the public interest.

In its Third Report and Order adopted December 22,1982 (93 FCC 2d 241), the Commission announced its conclusion that a substantial portion of fixed exchange plant costs that are assigned to interstate services should ultimately be recovered through flat per line charges assessed upon end users. It adopted access charge computations to accomplish that result.

Exceptions were made for pay telephones, the portion of a local dial switch that is sometimes described as non-traffic sensitive, and private line facilities used for services that are not close substitutes for MTS. A Universal Service Fund was also announced. This fund will be designed to preserve universal service by enabling high cost local exchange companies to establish local exchange rates which do not exceed local exchange rates charged by other local exchange companies.

A transitional plan was found to be necessary to avoid disparities in rates. The creation of an exchange carrier association to prepare access charge tariffs and distribute pooled access charge revenues.

In a Proposed Rulemaking adopted May 26, 1983 (48 FR 30153, June 30, 1983) the Commission proposed a plan for monitoring the effects of the interstate access charges on the availability of local telephone service. This monitoring will take place over a seven-year period.

In a Final Ruling (48 FR 42694 September 21, 1983) the Commission announced that changes were necessary because the existing rules might endanger universal service and competition in the industry.

FCC DOCKET CC 78-371 (ENFIA)

Following the Execunet decision in May 1978, the Bell System Companies filed a new tariff with the FCC seeking to offer to the specialized common carriers "Exchange Network Facilities for Interstate Access" (ENFIA). Numerous pleadings were filed in opposition to the proposed tariff, which was much higher than the local business line rates the specialized common carriers had been paying. In order to try and avoid an extended hearing process, the Assistant Secretary of Commerce for Communications urged the FCC to attempt to seek an interim solution through a negotiated settlement. There was a precedent for this in Docket 20099 (Facilities to OCC's) which implemented a legal obligation imposed in Docket 19896 (System Interconnection) to interconnect local telephone company facilities with specialized common carriers.

An interim agreement was reached in 1978 (the ENFIA Agreement). The agreement was limited to Execunet/Sprint-type interstate services and any end-to-end MTS/WATS type services. It did not cover FX or CCSA with ONAL services which are connected with exchange facilities at only one end.

The agreement, to last a maximum of five years, was patterned after the methods by which local telephone companies were compensated for use of exchange facilities for traditional MTS and WATS services (the separations process).

In recognition that a change from the then present access charge (local business line rates) to the separations method would have a serious and direct effect on the specialized common carriers, the interim agreement contemplated a phasing-in based on total revenues of the specialized common carriers. Specifically, the parties agreed that the specialized common carriers would phase-in paying the Separations Manual's factor above specifically identifiable costs (a traffic-sensitive cost/minute which is added to other specifically identifiable costs under the Manual) as follows:

Combined Revenues of all SCC's From MTS/WATS-like Services	Percentage of the Manual's Factor
Less than $110 million/year	35%
$110 to $250 million/year	45%
More than $250 million/year	55%

As mentioned earlier, this was intended to be an interim agreement. Paragraph 6 of the agreement provides that the interim charges will be superseded by charges filed pursuant to an order of the FCC in the MTS/WATS Market Structure Inquiry (Docket CC 78-72).

In a Memorandum Opinion and Order adopted April 16, 1979 (71 FCC 2d 440) the Commission approved the agreement and the BSOC 8 tariff came into effect on April 15, 1979. The Commission noted that FX and CCSA-ONAL access charges still required resolution.

In a Memorandum Opinion and Order adopted April 14, 1982 (90 FCC 2d 6), the FCC determined that a two-year extension of the original ENFIA agreement was required and that the level of payment for the OCC's use of jointly used subscriber plant was to be maintained at 55%.

It should be noted here that the rate of 55% of the "separations rate" for access lines is based on several considerations, including lower signal quality, requirement to use touch-tone, and the requirement to dial up to 22 digits. However, the discount of 45% is really a nominal discount, because it is based on a nominal number of minutes of use. Based on actual use, the actual discount is probably more like 70%.

Following the extension order, AT&T filed revisions to the BSOC 8 tariff. The FCC suspended effectiveness for five months and examined the "SEP amount" (the cost of NTS exchange plant per minute of use) and "billed minutes". In a Memorandum Opinion and Order adopted September 29,1982 (91 FCC 2d 1079), the AT&T proposed increase for ENFIA was found to be inconsistent with the agreement and AT&T was ordered to file reduced rates more in accord with the agreement.

AT&T petitioned the FCC to revise its calculation of off-peak billed minutes of use. In an Order on Reconsideration adopted March 31, 1983 (93 FCC 2d 739) the Commission revised the billed minutes upward.

FCC DOCKET CC 78-196 (USOA)

In 1978, the Commission initiated this proceeding (70 FCC 2d 719) to revise the Universal System of Accounts.

On August 9,1979, the FCC adopted a Supplemental Notice seeking comments on a single data base approach.

On October 7, 1981, the Commission adopted a Second Supplemental Notice (88 FCC 2d 83) which emphasized that the revised USOA will interrelate with the AT&T Cost Allocation Manual and the FCC-NARUC Separations Manual. It must also interrelate with several earlier decisions of the Commission including:

- Computer II
- Private Line Rate Structure Ruling
- Joint Board
- MTS/WATS Inquiry

The second notice also announced the formation of a Telecommunications Industry Advisory Group.

FCC DOCKET CC 79-105 (STATION CONNECTIONS)

This proceeding was initiated by an FCC request to AT&T to submit a plan for shifting the burden of costs associated with station connections to be placed on the causative ratepayer as opposed to the then present system which placed the burden on present and future ratepayers. It was a logical result of Docket 19129. AT&T's response was to propose an amendment to Part 31 of the Commission's rules.

In a First Report and Order adopted November 6, 1980 (85 FCC 2d 818) the FCC noted that the ultimate deregulation of inside wiring is a logical extension of Computer II. It proposed that all inside wiring (station connections) be expensed, beginning with 25% of new connections in 1981 and expensing 100% of new connections by 1984. Embedded investment would be amortized over 10 years.

Following the receipt of petitions to clarify and reconsider, the FCC adopted a Memorandum Opinion and Order on April 1, 1982 (89 FCC 2d 1094). The FCC found it could not preclude the state commissions from utilizing accounting and depreciation practices of their own choosing for intrastate regulatory purposes.

Upon further reconsideration, the Commission reversed its earlier position in a Memorandum Opinion and Order adopted December 22, 1982 (92 FCC 2d 864). This order found that inconsistent state regulation must be preempted to prevent the frustration of federal policies. The expensing order was accordingly binding on the state commissions.

FCC DOCKET CC 79-245 (COST ALLOCATION MANUAL)

In June of 1980, the FCC sought comments on the allocation of costs by AT&T for interstate services it offers or may offer. In its Notice of Proposed Rulemaking (78 FCC 2d 1296), it also put forward an Interim Cost Allocation Manual (ICAM). Contained in the notice were references to the fact that the costing methodology adopted as a result of Docket 18128 (Fully Distributed Costs, Method 7) was "impracticable".

In its Report and Order adopted in December 19, 1980 (84 FCC 2d 384) the Commission adopted the Interim Cost Allocation Manual, but noted that as soon as an access charge is prescribed in Docket CC 78-72, it will become the basis for the allocation of the costs of those services covered by the charge.

In an Order on Reconsideration adopted May 7, 1981 (86 FCC 2d 667) the Commission made a few minor modifications to the Interim Costing Manual.

[illegible]

FCC DOCKET CC 79-246 (PRIVATE LINE DISCOUNT PRACTICES)

The Commission published a Notice of Inquiry and Proposed Rulemaking in 1979 (74 FCC 2d 226) in which it stated it was inclined to believe that a complete restructuring of AT&T's private line tariffs was required. The notice traced through the long history of the discounting of private line rates, in particular the Telpak tariff, which had never been resolved to the satisfaction of the Commission. The Commission stated in part "...it is our tentative conclusion that AT&T's private line rate structures and tariff offerings are confusing, overly complex, and inconsistent, providing identical services and facilities in many instances under different terms, conditions and charges...Moreover, we believe they tend to thwart the operations of the competitive marketplace by making it difficult for customers to understand their options and intelligently choose the most advantageous."

The notice also required AT&T to submit an outline of its proposal to restructure its private line offerings.

We have been unable to locate any further references to this docket.

FCC DOCKET CC 79-252 (COMPETITIVE CARRIER)

In a Notice of Inquiry and Proposed Rulemaking adopted September 27, 1979 (77 FCC 2d 308) the FCC indicated its intention to examine the question of regulation of all types of common carriers. It described the four types of Other Common Carriers (OCC's) as follows:

- The SCC's (Specialized Common Carriers or terrestrial microwave carriers)
- The Domsats (Domestic satellite carriers)
- The resale or value-added carriers
- The MCC's (Miscellaneous Common Carriers or video relay carriers).

In a further Notice of Inquiry and Proposed Rulemaking adopted December 16, 1980 (84 FCC 2d 445) the Commission proposed to deregulate telecommunications services provided by competitive common carriers. It mentioned three options or approaches:

- Definition of common carriers
- Forbearance
- Deregulation of resale carriers

The First Report and Order in this Docket (85 FCC 2d 1) adopted August 1, 1980, classified common carriers on the basis of their dominance or power in the marketplace and applied different regulatory rules to each. AT&T and the independents along with Western Union, the Domsats, Domsat resellers and Miscellaneous Common Carriers were found to be dominant because they possessed the market power to justify the current regulatory approach.

All other carriers, including the specialized common carriers (other than Domsat resellers) were found to be non-dominant. The FCC determined that the application of then current regulatory procedures to non-dominant carriers imposed unnecessary and counter-productive regulatory constraints upon a marketplace which can satisfy consumer demand without government intervention. However, non-dominant carriers still had to file tariffs and obtain authorization for construction, but no economic justification was required.

The FCC further deregulated the industry in its Second Report and Order (91 FCC 2d 59) adopted July 29, 1982. It found that full rate and exit/entry regulation of resellers was unwarranted, and decided to forbear requiring them to file tariffs. Interestingly, ALTEL, a trade association of resellers, opposed the deregulation, arguing it would create a competitive disadvantage for resellers. It asserted that tariff filings serve as a valuable informational process by facilitating contact and dealings within the industry and by obviating the requirement for resale carriers to develop and maintain separate contracts with each customer.

In an Order on Reconsideration adopted February 17, 1983 (93 FCC 2d 54) petitions for reconsideration of the Second Report and Order were denied. The Commission affirmed that it has the authority to forbear imposing requirements of the Communications Act upon resellers of basic domestic terrestrial common carrier services.

FCC DOCKET CC 80-54 (RESALE AND SHARED USE - WATS)

This proceeding with respect to resale and shared use of WATS was instituted in response to a petition from MCI. In a Notice of Proposed Rulemaking adopted February 12, 1980 (77 FCC 2d 74) the Commission outlined several possibilities:

- Unlimited sharing of WATS
- Unlimited sharing and resale of WATS
- Unlimited resale of interstate WATS
- A market experiment on the resale of WATS

In a Report and Order adopted October 21, 1980 (83 FCC 2d 167) the Commission concluded that carrier-originated tariff restrictions on resale and shared use of common carrier domestic public switched network services (ie. MTS and WATS) were unlawful. It found unlimited resale and sharing to be in the public interest, and ordered the tariff restrictions removed within 60 days.

FCC DOCKET CC 80-286 (JOINT BOARD)

In a Notice of Proposed Rulemaking and Order adopted June 11, 1980 (78 FCC 2d 837) the Commission established a joint state-federal board. In view of the Commission's decisions to prescribe access charges and to detariff CPE in Dockets 78-72 and 20828 respectively, and in view of the increasing allocation of exchange plant to interstate, the Commission wished to reexamine the rules for allocation of exchange plant investment between interstate and intrastate services (the Separations Manual).

The Commission noted that terminal equipment charges are likely to be higher following the detariffing of terminal equipment (Computer II) because a portion of the terminal equipment costs will no longer be included in interstate service rates. It also noted that the level of allocation of NTS (Non-Traffic Sensitive) plant to the interstate jurisdiction was increasing, from 28% of MTS/WATS revenues in 1972, to 34% in 1978 to an estimated 41% in 1983. In dollar figures, the NTS costs allocated to interstate in 1983 were estimated to be $11.2 billion. In large part, this was due to the adoption in 1970 of the Ozark plan revisions to the separations manual under which MTS/WATS usage results in an assignment of NTS plant costs to the interstate jurisdiction at a weighting of 3.3 times the relative use.

In a Decision and Order adopted February 24, 1982 (89 FCC 2d 1) the Commission adopted a Joint Board recommendation to freeze the Subscriber Plant Factor (SPF) and to phase CPE out of the separations process. The SPF is used to allocate investment in station equipment, subscriber lines and the NTS portion of central office equipment.

It emphasized that the SPF freeze was an interim measure to maintain the allocation of NTS plant at then current levels pending a final plan. MCI claimed the whole allocation process was illegal since it was composed of certain subsidy elements and was not cost based. MCI and several others argued for an actual use allocation.

In a second further Notice of Proposed Rulemaking adopted March 25, 1982 (89 FCC 2d 604) the Commission asked for comments on a Joint Board recommendation allowing individual states to approve or mandate an early freeze of the CPE base amount to facilitate the initiation of CPE sales to subscribers prior to January 1, 1983. On May 24,1982 (90 FCC 2d 52) the FCC adopted the recommendation to allow individual states to approve or mandate an early freeze date for the CPE base amount.

On March 29, 1982, the North American Telephone Association filed a petition seeking reconsideration of the order concerning the phased removal of CPE from the separations process. On November 4, 1982, the Commission adopted a Memorandum Opinion and Order (91 FCC 2d 558) denying the petition.

Joint Board activities under this Docket are continuing, with emphasis being placed on the interrelationship of the access charge orders in Docket 78-72 with the Joint Board decisions.

FCC DOCKET CC 80-765 (WATS TARIFF)

In addition to its investigation into the lawfulness of rate discrimination between MTS and WATS (Docket 21402, Like Services), the FCC instituted this docket in response to AT&T's WATS tariff filed in September of 1980.

In a Memorandum Opinion and Order adopted May 15, 1981 (86 FCC 2d 820), the Commission ordered AT&T to revise its WATS tariff to incorporate a time-of-day sensitive rate structure element.

In a further Memorandum Opinion and Order adopted April 14, 1982 (89 FCC 2d 899) the Commission confirmed its intent to proceed with Phase II of the investigation into the lawfulness of the WATS/MTS tariff discrimination, and in particular to investigate whether creation of a unified PSN tariff would overcome such discrimination.

The Commission received several petitions to defer the proceedings. Many of these petitions argued that this was appropriate in view of the likely overturning of the "Like Services" decision. This decision, in fact, was overturned. In its Memorandum Opinion and Order adopted October 6, 1982 (91 FCC 2d 38), however, the Commission decided to proceed with the WATS investigation. It explained that, while resale of WATS would help to achieve cost-based WATS rates, it was never viewed as a complete substitute for other regulatory activities. Thus the Commission required AT&T to provide the cost and rate comparisons requested in the Phase II order.

FCC DOCKET CC 81-893 (COMPUTER II IMPLEMENTATION)

In its Notice of Inquiry adopted December 17, 1981 (89 FCC 2d 694) the Commission noted that it had instituted this docket to investigate ways to remove over $20 billion in CPE from the rate bases of the regulated carriers. The Commission noted that it had taken several steps including adopting a Joint Board Plan for a 5-year phase-out of CPE from the jurisdictional separations process and prescribing remaining-life depreciation rates for terminal equipment held by carriers under FCC jurisdiction.

The Commission also noted the Modified Final Judgment required that the divested BOC's be limited to offering exchange and exchange access and other natural monopoly services regulated by tariff. The BOC's would not be permitted to offer interexchange, information or CPE services.

FCC DOCKET CC 82-44 (RESALE OF PRIVATE LINE)

On January 28, 1982, the FCC adopted a Memorandum Opinion and Order and Notice of Proposed Rulemaking (88 FCC 2d 1406) respecting the resale of private line services to provide MTS or WATS or equivalents thereof.

These tariff restrictions can be traced back to the Specialized Common Carrier decision (Docket 18920). In Docket 20097 (Resale and Shared Use), the FCC allowed specialized common carriers to resell, but forbade unlimited resale and sharing. In Docket 80-54 (Sharing and Resale - WATS), the Commission decided that MTS and WATS should be subject to unlimited resale and sharing. However, resale and sharing of private line was not unlimited.

The Commission sought comments on whether the restrictive tariff provisions were in the public interest.

FCC DOCKET CC 82-45 (TRANSPONDER SALES)

In a Memorandum Opinion and Order and Authorization adopted July 29, 1982 (90 FCC 2d 1238) the FCC modified satellite licences to permit the sales of transponders on a non-common carrier basis. The Commission ruled that such sales furthered its flexible and open domestic satellite policies, and do not constitute an indiscriminate offer requiring regulation as common carriage, nor do they require FCC consent as an assignment of licence.

FCC DOCKET CC 82-619 (APPLICATION OF ENFIA)

In a Memorandum Opinion and Order adopted October 6, 1982 (91 FCC 2d 568) the FCC ruled on an August 1982 request from AT&T that the FCC declare that MCI's usage of local exchange facilities in providing interstate MTS/WATS type services is governed by the BSOC 8 (ENFIA) tariff, except for the resale of MTS and WATS, whether the facilities used were leased or owned.

The OCC's and resellers urged the FCC to except services from the ENFIA tariff when exchange connections are obtained through resold facilities. The Commission found that ENFIA charges apply to each end of MCI's MTS/WATS - like services regardless of whether any segment of the network used in providing the service incorporates resold facilities.

FCC DOCKET CC 83-115 (STRUCTURAL SEPARATION)

In a Notice of Proposed Rulemaking (93 FCC 2d 722) the FCC requested comments on whether the divested BOC's should be required to offer enhanced services or CPE through a separate subsidiary. The Commission sought to determine whether and to what extent the structural separation conditions in Computer II should be applicable to the BOC's following divestiture.

In Computer II, AT&T was ordered to offer enhanced services and CPE through a separate subsidiary. Other common carriers were required to maintain separate books of account and to purchase transmission capacity at tariffed rates.

FCC DOCKET CC 83-788 (IMPACT ON LOCAL RATES)

On July 27, 1983, the FCC adopted a Notice of Inquiry in response to a petition by the State of Michigan asking for a review of the cumulative effects of certain federal decisions on local rates and the availability of local service.

The Michigan petition had requested investigation of the effects of:

- Preempting state control over depreciation for intrastate ratemaking (CC 79-105)
- Imposing interstate access charges (CC 78-72)
- Expensing station connections and amortizing embedded investment (CC 79-105)
- Eliminating interstate revenue requirements associated with embedded CPE (CC 80-286)
- The AT&T divestiture

Twenty-seven states and the District of Columbia responded to a request for information.

On December 1, 1983, in Order 83-567, the Commission adopted a staff report which reported on the investigation of the Common Carrier Bureau staff into the matter. The study concluded that FCC policies do not threaten universal service. Staff analysis concluded that:

- The cumulative effects of the decisions addressed amounts to only $6.80 per month in 1989 (a compound growth rate of 6% per year)
- There is no evidence that federal decisions will cause residential subscribers to discontinue service and thus threaten universal service

The staff recommended that the FCC should continue to monitor the effects of federal decisions on local rates and the number of subscribers.

APPENDIX C

LISTING OF INDIVIDUALS INTERVIEWED DURING THE COURSE OF THE STUDY

LISTING OF INDIVIDUALS INTERVIEWED DURING THE COURSE OF THE STUDY

American Council for Competitive Telecommunications - Mr. Herbert Jasper, Executive Vice-President.

Association for Long Distance Telephone Companies - Mr. Thomas C. Gibson, National Coordinator for State Affairs.

Federal Communications Commission - Mr. Leonard Sawicki, Economist, Common Carrier Bureau.

GTE-Sprint Communications Corporation - Mr. Mitchell F. Brecher, Senior Attorney.

MCI Telecommunications Corporation - Mr. Carl M. Vorder Bruegge, Senior Vice-President.

State of Michigan Public Service Commission - Mr. Ronald Choura, Communications Engineer.

National Association of Regulatory Utility Commissioners - Mr. Michael Foley, Director of Financial Analysis and Ms. Genevieve Morelli, Deputy Assistant General Counsel.

New York Public Service Commission - Mr. Neil Swift, Director, Communications Division.

Public Utility Commission of Texas - Mr. Rowland L. Curry, Assistant Director of Engineering.

The consultants were also privileged to attend meetings of the NARUC Committee on Communications and Staff Sub-Committee on Communications in Washington, D.C., February 28-29, 1984, to which MCI, Sprint and AT&T made presentations.